File 350:Derwent WPIX 1963-2004/UD,UM &UP=200416
File 347:JAPIO Nov 1976-2003/Nov(Updated 040308)
File 371:French Patents 1961-2002/BOPI 200209

Set	Items	Description
S1	14	AU='BRYAN V':AU='BRYAN V M'
S2	13	AU='KUNZLER A'
S3	20	AU='CLARK C R'
S4	4	AU='GIL C E'
S5	**1**	**S1 AND S2 AND S3 AND S4**
S6	5	SINTERED()BEAD
S7	3010	SURFACE()HARDENING
S8	3223	DIP()COATING
S9	3949	JOINT AND PROSTHES?S
S10	3	S1:S4 AND S6:S9
S11	**3**	**S10 NOT S5**

5/7/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 THOMSON DERWENT. All rts. reserv.
014518636 **Image available**
WPI Acc No: 2002-339339/200237
Surgical implant useful as intervertebral disc endoprosthesis, for replacement of diarthroidal or arthroidal joints, in vertebrates, comprises two rigid opposing shells and deformable, resilient central body
Patent Assignee: SPINAL DYNAMICS CORP (SPIN-N); SDGI HOLDINGS INC (SDGI-N); BRYAN V (BRYA-I); KUNZLER A (KUNZ-I); CLARK C R (CLAR-I); CONTA B (CONT-I); GIL C E (GILC-I)
Inventor: **BRYAN V** ; CONTA R; **KUNZLER A** ; ROULEAU J; CONTA B; **CLARK C R** ; **GIL C E**
Number of Countries: 097 Number of Patents: 006
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200211650	A2	20020214	WO 2001US24791	A	20010807	200237	B
US 20020035400	A1	20020321	US 2000223863	P	20000808	200237	
			US 2001783910	A	20010213		
AU 200181166	A	20020218	AU 200181166	A	20010807	200244	
US 20020128715	A1	20020912	US 2000223863	P	20000808	200262	
			US 2001265218	P	20010131		
			US 2001783910	A	20010213		
			US 2001924298	A	20010808		
EP 1363565	A2	20031126	EP 2001959631	A	20010807	200380	
			WO 2001US24791	A	20010807		
JP 2004505668	W	20040226	WO 2001US24791	A	20010807	200416	
			JP 2002516989	A	20010807		

Priority Applications (No Type Date): US 2001783910 A 20010213; US 2000223863 P 20000808; US 2001265218 P 20010131; US 2001924298 A 20010808
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200211650	A2	E	51	A61F-002/44	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW

US 20020035400	A1	A61F-002/44	Provisional application US 2000223863	

AU 200181166 A A61F-002/44 Based on patent WO 200211650
US 20020128715 A1 A61F-002/44 Provisional application US 2000223863
Provisional application US 2001265218
Cont of application US 2001783910
EP 1363565 A2 E A61F-002/44 Based on patent WO 200211650
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR
JP 2004505668 W 83 A61F-002/44 Based on patent WO 200211650
Abstract (Basic): WO 200211650 A2

NOVELTY - A surgical implant (10) comprises two rigid opposing shells (OS) (40), each having an edge between an outer and inner surfaces; and a deformable, resilient central body (60) disposed between the inner surfaces of OS. The outer surface of OS is adapted to engage bone surfaces of a joint. The friction between the outer surface and bone surface restricts movement of OS relative to bone surface.

DETAILED DESCRIPTION - The inner surfaces of OS are smoother than the outer surfaces. The central body comprises an outer surface having at least one portion shaped to complement and articulate with the shape of the inner surface of rigid opposing shell(s), such that the inner surface of opposing shells and outer surface of central body move easily with respect to each other within a constrained range of motion.

INDEPENDENT CLAIMS are also included for the following:

(a) a vertebral endoprosthesis;
(b) bone joint implant;
(c) method of introducing a lubricant into the implant; and
(d) system of bone joint implants of varying sizes

USE - As intervertebral disc endoprosthesis, for replacement of diarthroidal or arthroidal joints, or portions of intervertebral disc material, in vertebrates, including humans.

ADVANTAGE - The implant having excellent stability, effectively utilizes soft tissues associated with joints to stabilize the implant and restricts some motion of the joint to the soft tissue. The implant having a simple design, provides effectively sealed, fluid filled capsule, irrespective of the joint being implanted. The implant is safe, enables control and engineering of moving surfaces, potentially generates less wear debris, enables tissue in-growth into the articulating regions of the implant and prevents degeneration of implant material by body fluids. The implant closely approximates the bio-mechanics and motion of a healthy joint, thus allowing co-ordinating movement of spine and reducing stress on adjacent joints. The rough outer surfaces of opposing shells provides excellent frictions, hence sufficiently restricts slippage between outer surface and bone surface in the joint. The deformable resilient central body also provides excellent elasticity, mechanical stability, wear resistance and dampening properties, similar to healthy joint tissues. The central body also provides sufficient creep-resistance or resistance to plastic deformation, to avoid post-operative loss of disc space height and to maintain appropriate joint geometry. The lubricious central body also provides good tribological properties in junction with inner surfaces of rigid shells. The implant can be implanted with precision and once implanted it is highly stable. The implant provide a sealed capsule presenting bio-compatible surfaces to surrounding tissues and keeping wear surfaces internal to the implant and permanently lubricated. Hence, the implant has extremely high durability, relative to natural intervertebral disc material. The implant also minimizes or entirely avoids post-operative adjacent level

disc degeneration, and prevents constrains joint torsion. The implant increases likelihood of bony in-growth instead of fibrous tissue formation hence has increased long-term stability.

DESCRIPTION OF DRAWING(S) - The figure shows isometric cross-sectional view of the intervertebral endoprosthesis.

Surgical implant (10)
Rigid opposing shell (40)
Deformable, resilient central body (60)
pp; 51 DwgNo 4/11

Derwent Class: A96; D22; P32
International Patent Class (Main): A61F-002/44

11/7/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

015647573 **Image available**
WPI Acc No: 2003-709756/200367

Implantable joint prosthesis **for replacement of diarthroidal or arthroidal joints has motion limiting components on at least one shell and on central body to limit movement of central body relative to shells**

Patent Assignee: SDGI HOLDINGS INC (SDGI-N)
Inventor: ALLARD R; BROMAN R; **BRYAN V** ; FINAZZO A; GIL C; **KUNZLER A** ; MARSHALL E; TOKISH L J; TOKISH L
Number of Countries: 102 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 20030135277	A1	20030717	US 2001333627	P	20011126	200367	B
			US 2002303569	A	20021125		
WO 200363727	A2	20030807	WO 2002US37835	A	20021126	200367	

Priority Applications (No Type Date): US 2001333627 P 20011126; US 2002303569 A 20021125
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030135277	A1		35	A61F-002/44	Provisional application US 2001333627
WO 200363727	A2	E		A61F-000/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): US 20030135277 A1

NOVELTY - A central body (60) is disposed between upper and lower, opposed, biocompatible shells (20,30). A motion limiting component on at least one of the shells contacts the motion limiting component on the central body to limit motion of the central body relative to the shells.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) an assembly for preparing a vertebral disc space to receive a **prosthesis** ; and

(b) a bone removal device.

USE - For replacement of diarthroidal or arthroidal joints.

ADVANTAGE - Provides implant design that is highly stable when implanted. Makes use of soft tissue associated with **joint** to

stabilize implant and restrict some motion of **joint** . Generates less wear debris. Enables debris to be contained within implant so as not to contact with live tissue or body fluids.

DESCRIPTION OF DRAWING(S) - The figure is a sectional view of an intervertebral endoprosthesis.

Shell (20,30)

Central body (60)

pp; 35 DwgNo 6/38

Derwent Class: P31; P32

International Patent Class (Main): A61F-000/00; A61F-002/44

International Patent Class (Additional): A61B-017/16

11/7/2 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

014508773 **Image available**

WPI Acc No: 2002-329476/200236

Stereotactic implantation device for precisely locating line containing predetermined point in surgical site using series of levels and plumb-lines

Patent Assignee: SPINAL DYNAMICS CORP (SPIN-N); ALLARD R (ALLA-I); BROMAN R J (BROM-I); BRYAN V (BRYA-I); CONTA R (CONT-I); FINAZZO A (FINA-I); GIL C E (GILC-I); KUNZLER A (KUNZ-I); ROULEAU J P (ROUL-I); TOKISH L (TOKI-I)

Inventor: ALLARD R; BROMAN R J; **BRYAN V** ; CONTA R; FINAZZO A; **GIL C E** ; **KUNZLER A** ; ROULEAU J P; TOKISH L; YAGER D; BROWMAN R; CONTA B; FINAZZO T ; GIL C; MARSHALL E; ROULEAU J

Number of Countries: 097 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200211633	A2	20020214	WO 2001US24793	A	20010807	200236	B
AU 200184752	A	20020218	AU 200184752	A	20010807	200244	
US 20020161446	A1	20021031	US 2000223863	P	20000808	200274	
			US 2001265218	P	20010131		
			US 2001783860	A	20010213		
			US 2001783910	A	20010213		
			US 2001923891	A	20010807		
EP 1307153	A2	20030507	EP 2001963832	A	20010807	200332	
			WO 2001US24793	A	20010807		

Priority Applications (No Type Date): US 2001783910 A 20010213; US 2000223863 P 20000808; US 2001265218 P 20010131; US 2001783860 A 20010213 ; US 2001923891 A 20010807

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200211633	A2	E	265	A61B-017/88	
					Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
					Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
AU 200184752	A			A61B-017/88	Based on patent WO 200211633
US 20020161446	A1			A61F-002/44	Provisional application US 2000223863 Provisional application US 2001265218 CIP of application US 2001783860 CIP of application US 2001783910
EP 1307153	A2	E		A61B-017/88	Based on patent WO 200211633
					Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI TR
Abstract (Basic): WO 200211633 A2

NOVELTY - A traverse centering tool (200) has opposed retractable tips which have blunt ends that extend laterally after insertion, to contact the sides of the inter-vertebral space and includes a marking device and a main shaft. The end of the tool receives a bubble level which can be used to orient the tool so that its end is located at the apogee of a transverse arc (6) defined by the lateral swing of the end of the tool, in order to locate a line containing a predetermined point in a surgical site.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

(1) A method of determining the appropriate size of a spine prosthetic;

(2) apparatus for positioning a subject;

(3) method for implanting an intervertebral disc **prosthesis** ;

(4) system for positioning and stabilizing surgical instruments;

(5) an adjustable frame assembly;

(6) an instrument clamp;

(7) method for locating a preferred position for a **prosthesis** ;

(8) an instrument adapted to locate a position within a surgical site;

(9) an orienting instrument and device;

(10) a machine fixture;

(11) method for adjusting a machining fixture;

(12) method for preparing a target space within a patient to receive a **prosthesis** ;

(13) method for confirming a correct position of a machining fixture;

(14) a multifunction wrench;

(15) system for machining the space between bones of a **joint** ;

(16) a milling depth gauge;

(17) a transverse burring system;

(18) a burring tool;

(19) a burring depth gage;

(20) system for separating and maintaining separation of the bones of a **joint** ;

(21) a method for distracting vertebral bodies;

(22) a profile-matching distractor;

(23) a skeletal **joint** distractor;

(24) an instrument for inserting a skeletal **joint** **prosthesis** into a **joint** space;

(25) a method for inserting a skeletal **joint** **prosthesis**0 into a **joint** space;

(26) a method of determining the relation of anatomical features relative to gravity.

USE - Location and preparation of site for inter-vertebral endo-**prosthesis** .

DESCRIPTION OF DRAWING(S) - The drawing shows the centering tool.
Tool (200)
Arc (6)
pp; 265 DwgNo 1/74

Derwent Class: P31; P32; S02; S05
International Patent Class (Main): A61B-017/88; A61F-002/44

11/7/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

012913773 **Image available**
WPI Acc No: 2000-085609/200007
Human spinal disc prosthesis **for implantation in a patient's damaged spine**
Patent Assignee: BRYAN V (BRYA-I); KUNZLER A (KUNZ-I)
Inventor: **BRYAN V** ; **KUNZLER A**
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6001130	A	19991214	US 94339490	A	19941114	200007 B
			US 96681230	A	19960722	
			US 97944378	A	19971006	

Priority Applications (No Type Date): US 97944378 A 19971006; US 94339490 A 19941114; US 96681230 A 19960722
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6001130	A		17	A61F-002/44	CIP of application US 94339490
					CIP of application US 96681230
					CIP of patent US 5674296

Abstract (Basic): US 6001130 A

NOVELTY - Disc **prosthesis** comprises a resilient body (20) formed of materials varying in stiffness from a relatively stiff exterior portion to a relatively supple central portion. Concaval convex elements (30) partly surround the resilient body to retain the body in a position between the concaval convex elements. Each concaval convex element comprises L-shaped supports (32,34), each support having a first concaval convex leg (42,44).

DETAILED DESCRIPTION - The first leg has an outer surface (52,54) for engaging adjacent bone and a corresponding inner concave surface (62,64) for retaining the resilient body. Each support further has a second leg (72,74) extending perpendicularly to the first leg and adapted for affixation to adjacent bone structure.

USE - Vertebral disc endo **prosthesis** which will perform effectively and efficiently within a patient's spine over a long time period, and which will not encourage degeneration of or cause damage to adjacent natural disc parts.

ADVANTAGE - The endo **prosthesis** can be installed to accurately mate the endo **prosthesis** with an adjacent specifically formed bone surface. The endo **prosthesis** will encourage bone attachment to, and growth upon, adjacent outer surfaces of the endo **prosthesis** . The endo **prosthesis** can be implanted in a surgical procedure which will decrease post operative recovery time and inhibit post operative disc, vertebral body and spinal **joint** degeneration.

DESCRIPTION OF DRAWING(S) - The drawing shows the disc endo **prosthesis** implanted into a human spine.

Resilient body (20)
Concaval convex elements (30)
L shaped supports (32,34)
First leg (52,54) Outer surface (42,44)
Inner concave surface (62,64)
Second leg (72,74)
pp; 17 DwgNo 3/14

Derwent Class: A96; D22; P32
International Patent Class (Main): A61F-002/44
International Patent Class (Additional): A61F-002/44

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File 348:EUROPEAN PATENTS 1978-2004/Feb W05
File 349:PCT FULLTEXT 1979-2002/UB=20040304,UT=20040226
Set     Items   Description
S1         18   AU='BRYAN VINCENT':AU='BRYAN VINCENT E JR'
S2         16   AU='KUNZLER ALEX'
S3          3   AU='CLARK CHARLES R':AU='CLARK CHARLES RANDALL'
S4          6   AU='CONTA ROBERT':AU='CONTA ROBERT L'
S5         10   AU='GIL CARLOS':AU='GIL CARLOS E'
S6          0   S1 AND S2 AND S3 AND S4 AND S5
S7       2245   JOINT(S)PROSTHES?S
S8       7321   DIP()COATING
S9        671   SURFACE()HARDENING
S10        44   SINTERED()BEAD???
S11         9   S1:S5 AND S7
S12         2   S11 AND S8:S10 [duplicates]
S13         7   S11 NOT S12

 13/6/4      (Item 1 from file: 349)
01011984     **Image available**
BONE REMOVAL DEVICE AND METHOD OF USE

 13/6/6      (Item 3 from file: 349)
00550246     **Image available**
PEANUT SPECTACLE MULTI DISCOID THORACO-LUMBAR DISC PROSTHESIS

 13/3,AB/7      (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00242382
SINTERED COATINGS FOR IMPLANTABLE PROSTHESES
REVETEMENTS FRITTES POUR PROTHESES IMPLANTABLES
Patent Applicant/Assignee:
  JOINT MEDICAL PRODUCTS CORPORATION,
Inventor(s):
   CONTA Robert L ,
  DECARLO Alfred F Jr,
  NOILES Douglas G
Patent and Priority Information (Country, Number, Date):
  Patent:               WO 9316656 A2 19930902
  Application:          WO 93US2008 19930218  (PCT/WO US9302008)
  Priority Application: US 92838577 19920219
Designated States: CA JP AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE
Publication Language: English
Fulltext Word Count: 5097
English Abstract
   A sintered coating (13) for an implantable prosthesis (10) is provided
  having 1) interstices into which tissue or bone can grow, and 2)
  increased surface roughness which provides enhanced initial press-fit
  fixation. In certain embodiments, the coating includes at least two sets
  of particles (46, 48) having different mean diameters. The sizes and
  numbers of particles are chosen so as to produce a matrix of smaller
  particles (48) in which are embedded a lesser number of spaced-apart
  larger particles (46). The smaller particles (48) provide support for the
  larger particles (46), and the larger particles (46) stand proud of the
  smaller particles (48) to provide the enhanced surface roughness. In
  other embodiments, the coating includes both generally smaller
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spherically-shaped (SS) particles and generally larger non-spherically-shaped (NSS) particles, with the NSS particles providing enhanced surface roughness and the SS particles providing support for the NSS particles.

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File 155:MEDLINE(R) 1966-2004/Mar W1
File   5:Biosis Previews(R) 1969-2004/Mar W1
File  73:EMBASE 1974-2004/Feb W5
File  34:SciSearch(R) Cited Ref Sci 1990-2004/Feb W5
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
Set     Items   Description
S1         17   AU='BRYAN V' OR AU='BRYAN V E' OR AU='BRYAN V.E.' OR AU='B-
              RYAN VE':AU='BRYAN VINCENT E'
S2         31   AU='KUNZLER A':AU='KUNZLER AM'
S3        822   AU='CLARK C R' OR AU='CLARK C RANDALL' OR AU='CLARK C.R.'
S4        506   AU='CLARK CR'
S5         19   AU='CLARK CHARLES R'
S6          5   AU='CONTA R L':AU='CONTA RL'
S7        394   AU='GIL C' OR AU='GIL C E' OR AU='GIL C.'
S8         17   AU='GIL CARLES' OR AU='GIL CARLOS'
S9     228165   PROSTHES?S
S10      2300   DIP()COAT??? OR SURFACE()HARDENING OR SINTERED()BEAD???
S11         0   S1 AND S2 AND S3:S5 AND S6 AND S7:S8
S12        42   S1:S8 AND S9
S13         0   S10 AND S12
S14        42   S12
S15        27   RD (unique items)
S16        27   Sort S15/ALL/PY,A

 16/6/3     (Item 3 from file: 155)
08936732   PMID: 2055912
  Bone-particle-impregnated bone cement: an in vivo weight-bearing study.
Feb 1991

 16/6/4     (Item 4 from file: 73)
05405231    EMBASE No: 1993173330
  Efficacy of Phemister bone grafting in nontraumatic aseptic necrosis of
the femoral head
  1993

 16/6/5     (Item 5 from file: 155)
09745129   PMID: 8314820
  The problem in total joint arthroplasty: aseptic loosening.
Jun 1993

 16/6/16     (Item 16 from file: 155)
10649514   PMID: 10761936
  A potential concern in total joint arthroplasty: systemic dissemination
of wear debris.
Apr 2000

 16/7/8     (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
10093228   PMID: 8200885
  Cost containment: total joint implants.
   Clark C R
  Journal of bone and joint surgery. American volume (UNITED STATES)   Jun
1994, 76 (6) p799-800, ISSN 0021-9355   Journal Code: 0014030
  Document type: Editorial
  Languages: ENGLISH
```

Main Citation Owner: NLM
Record type: Completed
Record Date Created: 19940707
Record Date Completed: 19940707

16/7/9 (Item 9 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

0013423579 BIOSIS NO.: 200200017090
Sintered coatings for implantable prostheses
AUTHOR: **Conta R L** ; Decarlo A F Jr; Noiles D G
AUTHOR ADDRESS: Wilton, Conn., USA**USA
JOURNAL: Official Gazette of the United States Patent and Trademark Office Patents 1173 (2): p1058 April 11, 1995 1995
MEDIUM: print
ISSN: 0098-1133
DOCUMENT TYPE: Patent
RECORD TYPE: Citation
LANGUAGE: English

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File 155:MEDLINE(R) 1966-2004/Mar W1
File   5:Biosis Previews(R) 1969-2004/Mar W1
File  73:EMBASE 1974-2004/Mar W1
File  34:SciSearch(R) Cited Ref Sci 1990-2004/Mar W1
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
File 144:Pascal 1973-2004/Feb W5
File   6:NTIS 1964-2004/Mar W1
File   8:Ei Compendex(R) 1970-2004/Feb W5
File  94:JICST-EPlus 1985-2004/Feb W5
File  99:Wilson Appl. Sci & Tech Abs 1983-2004/Feb
File  35:Dissertation Abs Online 1861-2004/Feb
File  65:Inside Conferences 1993-2004/Mar W1
File 323:RAPRA Rubber & Plastics 1972-2004/Mar
Set     Items   Description
S1     612815   PROSTHES?S OR ENDOPROSTHES?S OR PROSTHETIC? OR ENDOPROSTHE-
             TIC? OR IMPLANT? ?
S2    1481662   JOINT? ? OR ELBOW? ? OR HIP OR HIPS OR KNEE OR KNEES OR SH-
             OULDER? ? OR DIARTHROSIS OR ARTHRODIA
S3        523   SINTER?(2W)COAT???
S4    1745318   BEAD OR BEADS OR PARTICLE? ?
S5      10552   NONSPHERICAL? OR NON()SPHERICAL?
S6     964760   LUBRICANT? ? OR LUBRICIOUS OR LUBRICATING OR OIL OR OILS
S7     432347   CAPSUL? OR ENCAPSUL? OR POD OR PODS OR HULL OR HULLS
S8     863851   OPENING? ? OR APERTURE? ? OR OUTLET? ? OR SLOT OR SLOTS OR
             HOLE OR HOLES
S9    1487073   IMPREGNAT? OR IMBUE??? OR IMBUING OR INFUSE? ? OR INFUSING
             OR INFUSION? ? OR SUFFUS??? OR SUFFUSIONS OR SATURAT??? OR SO-
             AK???
S10      7320   SURFACE()HARDEN?
S11    107324   LUBRICITY OR LUBRICIOUS? OR LUBRICAT?
S12    224031   POLYURETHANE? OR POLYCARBONATE? OR POLYETHER? ?
S13     49809   (DIP OR BEAD)()COAT??? OR DIPS OR DIPPED OR DIPPING
S14       586   CHRONOTHANE OR CHRONOFLEX OR ELAST()EON OR ELASTEON OR BIO-
             NATE OR CARBOSIL OR TECHOTHANE OR TECOTHANE OR TECOFLEX OR CA-
             RBOTHANE
S15     75393   S1(3N)S2
S16         0   S4(2N)S5(S)S3
S17         0   S3(S)S4(S)S5
S18         0   S3 AND S4 AND S5
S19   1231123   SHAPE? ? OR SHAPING
S20         0   S3(3N)S4(3N)S19
S21         2   S3(S)S4(S)S19
S22         2   RD (unique items)
S23         0   S15 AND S22
S24         0   S1 AND S2 AND S22
S25         0   S6(S)S7(S)S8 AND S15
S26         0   S6 AND S7 AND S8 AND S1 AND S2
S27        11   S6(S)S8 AND S1 AND S2
S28         6   RD (unique items)
S29         2   S28/2001:2004
S30         4   S28 NOT S29
S31         5   S6(5N)S7 AND S1 AND S2
S32         5   S31 NOT S27
S33         4   RD (unique items)
S34         1   S33/2001:2004
S35         3   S33 NOT S34
```

S36 2618 S9(5N)S10:S12
S37 5 S1 AND S2 AND S36
S38 5 RD (unique items)
S39 5 S38 NOT (S27 OR S31)
S40 0 S39/2001:2004
S41 0 S13 AND S14 AND S1 AND S2
S42 12 S13 AND S14
S43 6 S1:S2 AND S42
S44 4 RD (unique items)

30/3,K/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 2004 The Dialog Corp. All rts. reserv.
10333894 PMID: 7829557
Isolation and characterization of metallic wear debris from a dynamic intervertebral disc prosthesis .
Schmiedberg S K; Chang D H; Frondoza C G; Valdevit A D; Kostuik J P
Department of Orthopaedic Surgery, Johns Hopkins School of Medicine, Good Samaritan Hospital, Baltimore, Maryland 21239.
Journal of biomedical materials research (UNITED STATES) Nov 1994, 28 (11) p1277-88, ISSN 0021-9304 Journal Code: 0112726
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
A dynamic intervertebral disc **prosthesis** (DIDP) has been developed. It consists of a CoCrMo body and uses Ti6Al4V springs to replicate the mechanical function of the lumbar **joint** . Wear studies have been performed previously on the DIDP using two specialized simulators to test the wear properties of the moving parts of the disc **prosthesis** . A pin-in- **slot** simulator generates wear that would occur in the hinge-pin assembly of the **prosthesis** . A spring-in-pocket simulator approximates the conditions under which the springs would wear against the body of the **prosthesis** . The spring-pocket interface is responsible for the production of approximately 90% of the total wear occurring in the **prosthesis** , and is therefore the main focus of this study. Bovine serum with a preservative has been used as a **lubricant** in both simulators. The spring-in-pocket simulator compares the effects of two different manufacturing...
Descriptors: Alloys; *Intervertebral Disk; * **Joint Prosthesis** ; *Materials Testing--methods--MT; *Titanium; *Vitallium

30/3,K/2 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 2004 Inst for Sci Info. All rts. reserv.
07313628 Genuine Article#: 149TG No. References: 18
Title: Friction reduction in total joint **arthroplasty**
Author(s): Young SK; Lotito MA; Keller TS (REPRINT)
Corporate Source: UNIV VERMONT,DEPT MECH ENGN, 119 VOTEY BLDG/BURLINGTON//VT/05405 (REPRINT); UNIV VERMONT,DEPT MECH ENGN/BURLINGTON//VT/05405; JOHNSON & JOHNSON PROFESS,/RAYNHAM//MA/
Journal: WEAR, 1998, V222, N1 (NOV), P29-37
ISSN: 0043-1648 Publication date: 19981100
Publisher: ELSEVIER SCIENCE SA, PO BOX 564, 1001 LAUSANNE, SWITZERLAND
Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)
...Abstract: wear particles are believed to play a significant role in the mechanical failure of artificial **joint** **prostheses** . The objective of

this study was to determine the effects of surface patterning on GUR...
...An undulating surface geometry, consisting of 2732 0.16-mm diameter, 0.32-mm deep **holes** , was machined onto the surface of six of the 12 disk specimens tested. Disk specimens...
...are hypothesized to reflect the fact that patterned surfaces act as a reservoir for the **lubricating** fluid and also trap wear particles, minimizing third body-type wear. Under the relatively high...

30/3,K/3 (Item 1 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.
02717798 JICST ACCESSION NUMBER: 96A0121116 FILE SEGMENT: JICST-E
Effects of Friction Surface Morphology on Wear Properties of Artificial Hip Joints .
KOBAYASHI YUJI (1); O HASEN (2); OKADA KATSUZO (2); IDE TAKATOSHI (3)
(1) Yamanashi Univ., Grad. Sch.; (2) Yamanashi Univ., Fac. of Eng.; (3) Yamanashi Med. Coll.
Nihon Kikai Gakkai Kanto Shibuv Seimitsu Kogakkai Yamanashi Koenkai Koen Ronbunshu, 1995, VOL.1995, PAGE.65-66, FIG.4, REF.1
JOURNAL NUMBER: X0828AAT
UNIVERSAL DECIMAL CLASSIFICATION: 616/618-76/78
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Conference Proceeding
ARTICLE TYPE: Short Communication
MEDIA TYPE: Printed Publication
ABSTRACT: For the purpose to elongate the life of artificial **hip joint** conventionarily used, grooving, **hole** boring and HDPE embedding were made on both surfaces of the capital and socket to...
...groove becomes a grinding undercut of the abrasion powder and a water course of the **lubricating** fluid, resulting in the decreased volume of abraded powder. When HDPE embedding on the surface...
DESCRIPTORS: **hip joint** ; ...
...artificial **joint** ;
BROADER DESCRIPTORS: **joint** (animal...
...artificial **implant** ;

30/3,K/4 (Item 2 from file: 94)
DIALOG(R)File 94:JICST-EPlus
(c)2004 Japan Science and Tech Corp(JST). All rts. reserv.
02619437 JICST ACCESSION NUMBER: 95A0947204 FILE SEGMENT: JICST-E
Fundamental Studies Of Artificial Hip Joints **With Small Holes.**
WANG B (1); OKADA KATSUZO (1); IDE TAKATOSHI (2); AKAMATSU NORIYA (2)
(1) Yamanashi Univ., Fac. of Eng.; (2) Yamanashi Med. Coll.
Nippon Rinsho Baiomekanikusu Gakkaishi(Proceedings of Annual Meeting of Japanese Society for Orthopaedic Biomechanics), 1995, VOL.16, PAGE.385-388, FIG.7, TBL.1, REF.5
JOURNAL NUMBER: X0647ABF
UNIVERSAL DECIMAL CLASSIFICATION: 616/618-76/78
LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Conference Proceeding
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication
ABSTRACT: In this paper, artificial **hip joints** with small **holes** were proposed as a method of modification for **lubricating** performance of the contact areas. Co-Cr alloy head and high density polyethylene(HDP) socket were used. Small **holes** with a diameter of 3mm and a depth of

0.5mm were engraved on the...
...load for different friction pairs were measured. The results obtained are as follows: (1) The **joints** with small **holes** had a remarkably low friction coefficient in comparision with that of the **joint** with flat surface. (2) There was a solid lubrication effect for the **joints** with small **holes** , as a result of HDP transfer thick film formed on the surface of the head with small **holes** . (author abst.)
DESCRIPTORS: artificial **joint** ; ...
... **hip** joint ;
BROADER DESCRIPTORS: artificial **implant** ; ...
... **joint** (animal

35/6/1 (Item 1 from file: 155)
05504378 PMID: 7470550
Problems of encapsulation of total joint **replacements.**
Jan 1980

35/6/3 (Item 2 from file: 323)
00275501
TITLE: ARTIFICIAL ENCAPSULATION OF JOINT PROSTHESES

35/3,K/2 (Item 1 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics
(c) 2004 RAPRA Technology Ltd. All rts. reserv.
00713295
TITLE: CHEMISTRY OF SILICONE BASED BIOMATERIALS AND WHY THEY CONTINUE TO BE MATERIALS OF CHOICE FOR HEALTHCARE APPLICATIONS
AUTHOR(S): Petraitis D J
CORPORATE SOURCE: NuSil Technology
CONFERENCE PROCEEDINGS: ACS Polymeric Materials Science and Engineering. Fall Meeting 1998. Volume 79. Conference proceedings
SOURCE: Boston, Mas., 23rd-27th Aug.1998, p.514. 012
JOURNAL ANNOUNCEMENT: 199904 RAPRA UPDATE: 199906
DOCUMENT TYPE: Conference Papers
LANGUAGE: English
SUBFILE: (R) RAPRA
...ABSTRACT: such diverse products as pacemaker leads, intraocular lenses, long and short term catheter and shunt **implants** , finger **joint implants** , as well as greases, **lubricants** , **encapsulants** and adhesives used in the fabrication, assembly or actual performance of an endless and continuing...

39/7/1 (Item 1 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics
(c) 2004 RAPRA Technology Ltd. All rts. reserv.
00634643
TITLE: MENISCAL TISSUE REGENERATION IN POROUS 50/50 COPOLY(L-LACTIDE/epsilon-CAPROLACTONE) IMPLANTS
AUTHOR(S): de Groot J H; Zijlstra F M; Kuipers H W; Pennings A J; Klompmaker J; Veth R P H; Jansen H W B
CORPORATE SOURCE: Groningen,University; Nijmegen,University Hospital
SOURCE: Biomaterials; 18, No.8, 1997, p.613-22
ISSN: 0142-9612
CODEN: BIMADU JOURNAL ANNOUNCEMENT: 199708 RAPRA UPDATE: 199715
DOCUMENT TYPE: Journal Article
LANGUAGE: English

SUBFILE: (R) RAPRA
ABSTRACT: Porous materials of a high molec.wt. 50/50 copolymer of L-lactide and epsilon-caprolactone with different compression moduli (40 and 100 kPa) were used for meniscal repair in the **knees** of dogs. A porous aliphatic PU series with compression modulus 150 kPa was implanted for comparison. Adhesion of the **implant** to meniscal tissue was found to be essential for healing of the longitudinal lesion. Copolymer **implants** showed better adhesion, probably due to the higher degradation rate of the copolymer. Fibrocartilage formation was found to be affected by the compression modulus of the **implant** . During degradation, the copolymer phase separated into a crystalline phase containing mainly L-lactide and an amorphous phase containing mainly epsilon-caprolactone. The copolymer degraded through bulk degradation. 36 refs.

39/7/2 (Item 2 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics
(c) 2004 RAPRA Technology Ltd. All rts. reserv.
00492136
TITLE: PROSTHETIC **REPLACEMENT OF THE RABBIT MEDIAL MENISCUS**
AUTHOR(S): Messner K; Gillquist J
CORPORATE SOURCE: Linkoping,University Hospital
SOURCE: Journal of Biomedical Materials Research; 27, No.9, Sept.1993, p.1165-73
ISSN: 0021-9304
CODEN: JBMRBG JOURNAL ANNOUNCEMENT: 199311 RAPRA UPDATE: 199321
DOCUMENT TYPE: Journal Article
LANGUAGE: English
SUBFILE: (R) RAPRA
ABSTRACT: **Implants** of PU-coated polyester (Dacron), PU-coated PTFE (Teflon) or uncoated PTFE were used to substitute the medial rabbit meniscus and evaluated over a three month period. The **knee joints** were subjected to biomechanical testing, histological evaluation and cartilage indentation tests. The best results were obtained with the coated PTFE although cartilage softening and osteophyte formation indicated that **joint** mechanics were not restored to normal. 18 refs.

39/7/3 (Item 3 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics
(c) 2004 RAPRA Technology Ltd. All rts. reserv.
00484900
TITLE: SYNTHETIC IMPLANTS **FOR THE REPAIR OF OSTEOCHONDRAL DEFECTS OF THE MEDIAL FEMORAL CONDYLE: A BIOMECHANICAL AND HISTOLOGICAL EVALUATION IN THE RABBIT** KNEE
AUTHOR(S): Messner K; Gillquist J
CORPORATE SOURCE: Linkoping,University Hospital
SOURCE: Biomaterials; 14, No.7, June 1993, p.513-21
ISSN: 0142-9612
CODEN: BIMADU JOURNAL ANNOUNCEMENT: 199309 RAPRA UPDATE: 199317
DOCUMENT TYPE: Journal Article
LANGUAGE: English
SUBFILE: (R) RAPRA
ABSTRACT: Results are presented of an investigation of the use of PU-coated and uncoated PTFE (Teflon) and polyester (Dacron) felts for repair of full-thickness cartilage defects in the rabbit **knee** and of an evaluation, at three months, of the indentation characteristics and the

histological appearance of the repairs in comparison with those of a sham-operation, natural repair and periosteal grafting. 31 refs.

39/7/4 (Item 4 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics
(c) 2004 RAPRA Technology Ltd. All rts. reserv.
00304256
TITLE: NEW FINGER JOINT **IMPLANTABLE** PROSTHESIS **IN AN EX-VIVO MODEL: BIOSTEREOMETRIC STUDIES**
AUTHOR(S): Habal M B; Leake D L; Dunn B
CONFERENCE PROCEEDINGS: ACS Polymeric Materials Science and Engineering
SOURCE: 53, Sept.1985, p.775-7
JOURNAL ANNOUNCEMENT: 198603 RAPRA UPDATE: 198604
DOCUMENT TYPE: Conference Papers
LANGUAGE: English
ABSTRACT: A **joint prosthesis** of PETP **impregnated** with **polyether** -urethane for stiffening was designed as a unit of two tubular ends for bone shaft implantation and a flattened middle segment to act as a hinge. Two designs were fatigue tested by flexing in physiological solutions or in air and ascertaining the degree of degradation relative to the number of cycles. Fatigue was shown by fracture of the fibres of the PETP mesh and a flaking-off of the PU coating. 1 ref.

39/7/5 (Item 5 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics
(c) 2004 RAPRA Technology Ltd. All rts. reserv.
00276294
TITLE: PLASTICS AND BIOMATERIALS: WHERE ARE THEY IN 1984?
AUTHOR(S): Chretien G
SOURCE: Revue Generale des Caoutchoucs et Plastiques; 62, No.649, March 1985, p.99-103
JOURNAL ANNOUNCEMENT: 198510 RAPRA UPDATE: 198520
DOCUMENT TYPE: Journal Article
LANGUAGE: French
SUBFILE: (R) RAPRA; (A) Adhesives
ABSTRACT: The use of plastics in surgical **implants** is reviewed.

44/6/1 (Item 1 from file: 155)
14105617 PMID: 9804482
Synthesis of a novel small diameter polyurethane vascular graft with reactive binding sites.
Sep-Oct 1998

44/6/4 (Item 2 from file: 323)
00165153
TITLE: FABRICATION AND TESTING OF FLOCKED BLOOD PUMP BLADDERS

44/3,K/3 (Item 1 from file: 323)
DIALOG(R)File 323:RAPRA Rubber & Plastics
(c) 2004 RAPRA Technology Ltd. All rts. reserv.
00847740
TITLE: HEART OF THE MATTER
AUTHOR(S): Warmington A
SOURCE: European Plastics News; 29, No.3, March 2002, p.24-5
ISSN: 0306-3534
CODEN: EUPNBT JOURNAL ANNOUNCEMENT: 200205 RAPRA UPDATE: 200209

DOCUMENT TYPE: Journal Article
LANGUAGE: English
SUBFILE: (R) RAPRA
...ABSTRACT: are assembled by hand in an isolation cabinet within a clean room. They are then **dipped** in **Elast** - **Eon** , which the company describes as a novel biomaterial. The valves are then cured, trimmed and...
TRADE NAMES: PEEK-OPTIMA; **ELAST** - **EON**
...DESCRIPTORS: REINFORCED PLASTIC; CARDIOVASCULAR DEVICE; CATHETER; CFRP; CLEAN ROOM; COMPANIES; COMPANY; COMPOSITE; CUFF; CURING; DATA; DEVELOPMENT; **DIPPED** ; **DIPPING** ; DURABILITY; ECONOMIC INFORMATION; FABRIC; FIBRE-REINFORCED PLASTIC; FILLER; FLEXURAL MODULUS; FLEXURAL PROPERTIES; HEART VALVE; **IMPLANT** ; MARKET SHARE; MECHANICAL PROPERTIES ; MEDICAL APPLICATION; PEEK; PLANT START-UP; PLASTIC; POLYACETAL; POLYETHER-ETHERKETONE; POLYFLUOROETHYLENE...

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File  98:General Sci Abs/Full-Text 1984-2004/Feb
File   9:Business & Industry(R) Jul/1994-2004/Mar 11
File  16:Gale Group PROMT(R) 1990-2004/Mar 11
File 160:Gale Group PROMT(R) 1972-1989
File 148:Gale Group Trade & Industry DB 1976-2004/Mar 05
File 621:Gale Group New Prod.Annou.(R) 1985-2004/Mar 11
File 149:TGG Health&Wellness DB(SM) 1976-2004/Feb W5
File 441:ESPICOM Pharm&Med DEVICE NEWS 2004/Mar W1
File 636:Gale Group Newsletter DB(TM) 1987-2004/Mar 11
File 369:New Scientist 1994-2004/Mar W1
File 370:Science 1996-1999/Jul W3
Set     Items   Description
S1      76596   PROSTHES?S OR ENDOPROSTHES?S OR PROSTHETIC? OR ENDOPROSTHE-
             TIC? OR IMPLANT? ?
S2    2267669   JOINT? ? OR ELBOW? ? OR HIP OR HIPS OR KNEE OR KNEES OR SH-
             OULDER? ? OR DIARTHROSIS OR ARTHRODIA
S3         93   SINTER?(2W)COAT???
S4     160521   BEAD OR BEADS OR PARTICLE? ?
S5        443   NONSPHERICAL? OR NON()SPHERICAL?
S6    2386699   LUBRICANT? ? OR LUBRICIOUS OR LUBRICATING OR OIL OR OILS
S7     197602   CAPSUL? OR ENCAPSUL? OR POD OR PODS OR HULL OR HULLS
S8    1886508   OPENING? ? OR APERTURE? ? OR OUTLET? ? OR SLOT OR SLOTS OR
             HOLE OR HOLES
S9     322069   IMPREGNAT? OR IMBUE??? OR IMBUING OR INFUSE? ? OR INFUSING
             OR INFUSION? ? OR SUFFUS??? OR SUFFUSIONS OR SATURAT??? OR SO-
             AK???
S10       553   SURFACE()HARDEN?
S11     58121   LUBRICITY OR LUBRICIOUS? OR LUBRICAT?
S12     82240   POLYURETHANE? OR POLYCARBONATE? OR POLYETHER? ?
S13    115069   (DIP OR BEAD)()COAT??? OR DIPS OR DIPPED OR DIPPING
S14       264   CHRONOTHANE OR CHRONOFLEX OR ELAST()EON OR ELASTEON OR BIO-
             NATE OR CARBOSIL OR TECHOTHANE OR TECOTHANE OR TECOFLEX OR CA-
             RBOTHANE
S15      5247   S1(3N)S2
S16         0   S3(S)S4(S)S5
S17        11   S3(S)S4
S18         0   S1(S)S2(S)S17
S19         7   S1:S2 AND S17
S20         6   RD (unique items)
S21         3   S20/2001:2004
S22         3   S20 NOT S21
S23         1   S13(S)S14
S24         1   S1:S2 AND S23
S25      1331   S9(S)S10:S12
S26         2   S1(S)S2(S)S25
S27       143   S6(S)S7(S)S8
S28         0   S1(S)S2(S)S27
S29         7   S1:S2(S)S27
S30         5   RD (unique items)
S31         1   S30/2001:2004
S32         4   S30 NOT S31 [not relevant]

 22/3,K/1     (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.
06812475     SUPPLIER NUMBER: 14229443    (USE FORMAT 7 OR 9 FOR FULL TEXT)
```

Plasma-spray coatings spread their wings; the surface-treatment technology's applications are expanding from aviation to reducing turbomachinery wear and improving the bonding of medical implants **. (includes a related article on other thermal spray-coating techniques)**
Valenti, Michael
Mechanical Engineering-CIME, v115, n9, p60(4)
Sept, 1993
ISSN: 0025-6501 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 2776 LINE COUNT: 00226
TEXT:
... IMPROVING MEDICAL **IMPLANTS**

APS-Materials Inc. in Dayton, Ohio, is a plasma-spraying firm that has made the...
...to improving the performance of the human body by spray coating artificial limbs and dental **implants** .

The company began plasma-spray coating aerospace turbine components on a commercial basis in the...
...s fuel consumption in half.

In the medical field, APS-Materials is commercially coating artificial **hip** stems (used to replace **hip joints**), **knee joints** , and dental **implants** (the foundation for a tooth **implant**) for manufacturers including Biomet Inc. in Warsaw, Ind., Howmedica in New York, and Orthomet in Minneapolis.

The advantage of plasma coating medical **implants** is that these coatings give **implants** a porous surface that bone can penetrate more readily and economically than conventional **sintered bead coating** . **Sintered bead coating** involves putting tiny metallic **beads** on the **implant** and inserting the **implant** into a furnace so that the **beads** diffuse into the part's surface. Plasma spraying also eliminates the problem of reduction of fatigue strength caused by the thermal cycle necessary to sinter the **beads** .

There has been such biomedical demand for APS-Materials' plasma coatings that the company erected a new 18,000-square-foot building dedicated to coating medical **implants** . This facility is equipped to plasma spray titanium alloy containing 4 percent vanadium and 6...
...material made of calcium phosphate hydroxide. The titanium coating will serve APS-Materials in its **joint** venture with CAM **Implants** b.v. of Leyden, Netherlands. CAM **Implants** makes hydroxyapatite and coats **implants** with the material...

22/3,AB,K/3 (Item 1 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2004 The Gale Group. All rts. reserv.
01830614 Supplier Number: 43113857
BONE MATERIALS
Biomedical Materials, pN/A
July, 1992
Language: English Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 961

When porous and plasma-coated **implants** are placed in identical sites of contralateral limbs, the plasma coatings consistently yield higher...
...sprayed cobalt-chromium coating with low surface area was compared to that of a conventional **sintered bead coating** in goat cortical and cancellous bone sites after eight and 16 weeks of implantation.

Histological...

...in fixation quality between individual animals and between surgical sites, with no consistent difference between **implant** types. Shear testing of bone/ **implant** interfaces showed that although conventional porous coatings exhibited higher overall average shear strengths in cortical...
...conclude the authors of this study.

The interfacial bond strength of four candidate structural orthopaedic **implant** fibre/matrix combinations (carbon fibre/polycarbonate, carbon fibre/polysulphone, polyaramid fibre/polycarbonate, polyaramid fibre/polysulphone...
...to exhibit a slower resorption rate and lower shrinkage than the copolymer. An 'enduring scaffold' **implant** system is said to be the result. Initial compressive mechanical properties of the blend are...
...five relative to the copolymer, although the authors claim that this facilitates shaping of the **implant** in the operating room...

24/3,AB,K/1 (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2004 The Gale Group. All rts. reserv.
07948343 SUPPLIER NUMBER: 17114302 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Move over rubber! Today's TPEs have more to give. (thermoplastic elastomers)(Cover Story)
Gabriele, Michael C.
Plastics Technology, v41, n6, p42(6)
June, 1995
DOCUMENT TYPE: Cover Story ISSN: 0032-1257 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT
WORD COUNT: 3464 LINE COUNT: 00276
... the vehicle, as air-bag covers have emerged as a major new application.

A new **joint** marketing accord between Novacor Chemicals and RheTech Inc. will allow each firm to offer Novacor...available; an extrusion version is coming.

In the medical sector, Thermedics has developed a new **Carbothane** TPU/PC for long-term **implants** . It has passed the USP Class 6 **implant** test of more than 30 days. It comes in hardnesses from 75 A to 72 D and in injection and extrusion grades, as well as a solution grade for **dip coating**.

J-Von introduced S2954 TPU alloys at NPE last year. Available in hardnesses of 47...

26/3,AB,K/1 (Item 1 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2004 The Gale Group. All rts. reserv.
05794817 Supplier Number: 50285497
In a time of change, orthopedics sector is marked by new modalities
The BBI Newsletter, v21, n9, pN/A
Sept 1, 1998
Language: English Record Type: Fulltext
Article Type: Article
Document Type: Newsletter; Trade
Word Count: 2915
TEXT:
...biological regeneration looms on the horizon; cartilage regeneration technology is now in clinical use for **knee** repair. Will metal hardware give way to **joint** regeneration in the future? Osteoconductive bone graft materials About 500,000 patients require some type...growth, while the bovine fibrillar collagen serves as an extracellular matrix for bone

growth. Collagraft **implant** and Collagraft strips are approved for use in traumatic osseous defects and acute long bone...
...physicians can monitor the resorbtion progress. Wright is developing versions of its pellets that are **impregnated** with antibiotics. These pellets, such as Osteoset T (pellets containing tobramycin), are designed...
...a putty-like consistency and can be shaped prior to hardening into a structurally stable **implant** . BoneSource converts to hydroxyapatite as it hardens. Howmedica is conducting clinical trials of craniomaxillofacial...
...with wrist and other metaphyseal fractures. Norian SRS is injected into fractures of the wrist, **knee** , **hip** , and spine. The injected bone-mineral substitute sets in 10 minutes and cures into the...
...OP-1. The device consists of a paste made of Type 1 bovine collagen beads **impregnated** with recombinant BMP-7. BMP-7 is also known as osteogenic protein-1, or simply...Collagen and Zimmer, Chi-ron (Emeryville, California), Sulzer Orthopedics (Austin, Texas) and ProCyte (Redmond, Washington). **Knee** soft tissue repair Soft tissue repair is rapidly advancing, particular-ly for **knees** . There are new treatments for **knee** pain caused by either osteoarthritis or trauma (see Table 2, page 189). Because of the different pathologies of these two types of **knee** damage, the treatments are not interchangeable. Innovative technologies for treatment of osteoarthritic **knees** involve synovial fluid additions. Cartilage transplantation has been proven superior to older technologies for treating...
...fluid In 1997, the FDA approved two synovial fluid substitutes for use in treating osteoarthritic **knees** . Hyaluronan, one of the main components of synovial fluid, is a viscoelastic glycosaminoglycan that pro-vides **lubrication** and shock absorption for **joints** . Commercial quantities of hyaluronan are obtained from chicken combs. Some companies have been working to...
...became the first synovial fluid replacement product to receive FDA approval for the treatment of **knee** osteoarthritis. Hyalgan was developed by Fidia Pharmaceuticals in Italy and is marketed in the U...
...uronate. In a clinical study of 108 osteoarthritis patients who received five injections to the **knee** over a period of five weeks, a 12 month follow-up showed a greater than...
...While Synvisc was formulated to have the same viscosity as the synovial fluid of a **knee** **joint** of a healthy young person, it retains superior elasticity. Clinical studies involving more than 1,700 patients have demonstrated that Synvisc is an efficacious treatment for osteoarthritis of the **knee** . Articular cartilage and meniscus repair Because of the poor blood supply to cartilage, injuries to...
...desired volume of cartilage cells is obtained, they are implanted back into the patient's **knee** . The cultured cells are injected under a periosteal patch that has been placed over the...
...MosaicPlasty, plugs of the patient's healthy cartilage are transplanted into the area of the **knee** with cartilage damage. Arthrex Arthroscopy Instrumentation (Naples, Florida) also has autotransplantation instruments on the market...
...Cartilage lined bone plugs are taken from non-weight-bearing areas of the patient's **knee** and transplanted into the dam-aged weight-bearing areas. As the bone graft incor-porates...
...covered with hyaline cartilage. These cartilage transfer pro-cedures have been used successfully to treat **knee** pain caused by articular cartilage damage in Europe for more than five years. Advanced Tissue...
...develop, manufacture and market a system to grow and deliver tissue-engineered carti-lage for **knee** cartilage repair. The FDA plans to

reg-ulate such products as medical devices. Meniscus repair...

```
File  31:World Surface Coatings Abs 1976-2004/Feb
File  96:FLUIDEX 1972-2004/Feb
File 187:F-D-C Reports 1987-2004/Mar W1
File 198:Health Devices Alerts(R) 1977-2004/Mar W2
File 583:Gale Group Globalbase(TM) 1986-2002/Dec 13
File 315:ChemEng & Biotec Abs 1970-2004/Feb
File  71:ELSEVIER BIOBASE 1994-2004/Mar W1
File 143:Biol. & Agric. Index 1983-2004/Feb
File 172:EMBASE Alert 2004/Mar W1
File 358:Current BioTech Abs 1983-2004/Feb
File  50:CAB Abstracts 1972-2004/Feb
File 285:BioBusiness(R) 1985-1998/Aug W1
File 319:Chem Bus NewsBase 1984-2004/Mar 15
Set     Items   Description
S1     497551   PROSTHES?S OR ENDOPROSTHES?S OR PROSTHETIC? OR ENDOPROSTHE-
             TIC? OR IMPLANT? ?
S2     341870   JOINT? ? OR ELBOW? ? OR HIP OR HIPS OR KNEE OR KNEES OR SH-
             OULDER? ? OR DIARTHROSIS OR ARTHRODIA
S3         40   SINTER?(2W)COAT???
S4     189039   BEAD OR BEADS OR PARTICLE? ?
S5        671   NONSPHERICAL? OR NON()SPHERICAL?
S6     470376   LUBRICANT? ? OR LUBRICIOUS OR LUBRICATING OR OIL OR OILS
S7     122778   CAPSUL? OR ENCAPSUL? OR POD OR PODS OR HULL OR HULLS
S8     169546   OPENING? ? OR APERTURE? ? OR OUTLET? ? OR SLOT OR SLOTS OR
             HOLE OR HOLES
S9     247398   IMPREGNAT? OR IMBUE??? OR IMBUING OR INFUSE? ? OR INFUSING
             OR INFUSION? ? OR SUFFUS??? OR SUFFUSIONS OR SATURAT??? OR SO-
             AK???
S10       297   SURFACE()HARDEN?
S11     41682   LUBRICITY OR LUBRICIOUS? OR LUBRICAT?
S12     55208   POLYURETHANE? OR POLYCARBONATE? OR POLYETHER? ?
S13     20688   (DIP OR BEAD)()COAT??? OR DIPS OR DIPPED OR DIPPING
S14        93   CHRONOTHANE OR CHRONOFLEX OR ELAST()EON OR ELASTEON OR BIO-
             NATE OR CARBOSIL OR TECHOTHANE OR TECOTHANE OR TECOFLEX OR CA-
             RBOTHANE
S15     16450   S1(3N)S2
S16     55543   S1 AND S2
S17         0   S3 AND S4 AND S5
S18        10   S3 AND S4
S19         1   S16 AND S18
S20         0   S3 AND S5
S21        77   S6 AND S7 AND S8
S22         0   S15 AND S21
S23         6   S6(S)S8 AND S16
S24         6   S23 NOT S19
S25         6   RD (unique items) [duplicates or not relevant]
S26      1592   S9 AND S10:S12
S27         0   S16 AND S21
S28         8   S16 AND S26
S29         8   S28 NOT (S19 OR S23)
S30         8   RD (unique items)
S31         2   S30/2001:2004
S32         6   S30 NOT S31
S33         0   S13 AND S14 AND S16
S34         2   S13 AND S14
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19/7,K/1 (Item 1 from file: 285)
DIALOG(R)File 285:BioBusiness(R)

00434876
Bone apposition to plasma-sprayed cobalt-chromium alloy.
Luckey H A; Lamprecht E G; Walt M J
ORTHOPEDIC PRODUCTS DIV./3M, 270-4N-09 3M CENTER, ST. PAUL, MINN. 55144.
Journal of Biomedical Materials Research Vol.26, No.5, p.557-575, 1992.
ABSTRACT: The use of porous metallic coatings for fixation of total **joint prostheses** by bone ingrowth has become a widespread alternative to fixation with PMMA bone cement. However, concerns about such coatings include long-term effects of metal ion release, potential coating loss, and decreased substrate fatigue strength. The biological fixation capability of a nonporous, high-integrity plasma-sprayed CoCr coating with low surface area was compared to a conventional **sintered bead coating** in goat cortical and cancellous bone sites after 8 and 16 weeks of implantation. Histological evaluation showed substantial variations in fixation quality between individual animals and between surgical sites with no consistent differece between **implant** types. Shear testing of bone/ **implant** interfaces showed that although conventional porous coating exhibited higher overall average shear strengths in cortical bone sites at both time periods, the differences were not statistically significant. In cancellous sites, the average shear strengths achieved with achieved with conventional porous and plasma-sprayed coatings were essentially equal. Analysis using average paired differences, however, revealed that when porous and plasma-coated **implants** are placed in identical sites of contralateral limbs, the plasma coatings consistently yielded higher shear strengths in cancellous bone sites at the later time period. Since current design theory for biological fixation favors metaphysical fixation, this surface may offer potential advantages over conventional porous coatings.
...DESCRIPTORS: **PROSTHETIC IMPLANT**

32/7,K/2 (Item 2 from file: 187)
DIALOG(R)File 187:F-D-C Reports

00089226 F-D-C Accession Number 01190150004
The Gray Sheet
April 12, 1993
Volume 19, Issue 15
SILICONE MATERIALS POLICY SHOULD BE IN EFFECT BY END OF APRIL, FDA SAYS; HIMA PREPARING SILICONE EQUIVALENCY TESTING PROPOSAL FOR SUBMISSION TO DEVICE CENTER

FDA's strategy for allowing continued marketing of **implants** containing new silicone materials is expected to be implemented by the end of April, according to device center staffers. FDA is developing the program in response Dow Corning's recent exit from the **implant** -grade silicone materials market.

Under a plan outlined March 5, marketing of **implants** incorporating new silicone materials will continue while FDA reviews special applications demonstrating that the alternative silicone is "not substantially different" from materials previously supplied by Dow Corning ("The Gray Sheet" March 15, I&W-1). The intent of the program is to guarantee continued availability of the large numbers of **implants** that incorporate Dow Corning silicone materials.

Before the silicone materials policy can be implemented, FDA must identify the type of testing needed to demonstrate that new materials are

essentially equivalent to the original silicone materials. HIMA is working with the agency to develop testing requirements and is expected to forward a proposal on the issue to FDA by April 16.

As previously announced ("The Gray Sheet" Dec. 7, I&W-10), Dow Corning stopped taking orders for **implant** -grade silicone materials on March 31. The firm, however, is maintaining a small supply of the silicones for use in equivalency testing by device manufacturers.

Dow Corning is one of at least four companies planning to pull its raw materials for **implants** from the market. CDRH staffers say it is too early to decide whether the silicone materials policy should be applied to other types of materials being taken off the market.

In February, DuPont announced that it would no longer produce materials such as Teflon for permanently implantable devices after Jan. 31, 1994. In addition, Dow Chemical told customers in 1989 that, after April 1995, it would discontinue sale of its Pellethane **polyurethane** elastomer for use in long-term **implants** and later recommended against use of the material in short-term **implants** . Dow Chemical sells Pellethane primarily for insulating pacemaker leads; the company's customers include Medtronic and Cordis. Another material withdrawal reportedly is being undertaken by Johnson & Johnson's Ethicon subsidiary, which is said to be phasing out production of its Biomer solution casting polymer.

As well as creating new regulatory hurdles at FDA, the withdrawals are forcing device manufacturers to find new sources of raw materials. A number of companies could serve as suppliers of silicone, according to HIMA. In addition, several **polyurethane** suppliers are promoting their materials as alternatives to polymers and silicones.

One company, Corvita, recently entered the **implant** materials market with Corethane, an elastomeric **polycarbonate** urethane. The company is offering its Corethane line of ether-free, aromatic biopolymers as an alternative to "older biomaterials being withdrawn by Dow Chemical, Johnson & Johnson, DuPont and Dow Corning," the company says. Corvita is seeking to license Corethane to medical device manufacturers. In conjunction with the deals, the firm will make its device master file on the product available to licensees.

Several device manufacturers are testing Corethane for use as a stent coating, and pacemaker manufacturers have expressed interest in using the material as a pacer lead insulator and connector, according to Corvita. In addition to pacer and stent applications, Corethane "is an ideal biomaterial" for long-term in-dwelling catheters and temporary hemodialysis catheters, Corvita says. It also can serve "as a coating on...orthopedic **implants** and as a component in implantable reservoirs, pumps and valves," Corvita says in a March 31 press release.

Corvita adds that its material is "biocompatible and highly resistant to biodegradation." The firm originally developed Corethane for use in its small diameter vascular grafts, which have been in clinical studies for over three years, the company says.

Device and materials manufacturer PolyMedica also is positioning its **polyurethane** product, Chronoflex, ("The Gray Sheet" Aug. 26, 1991, p. 12) as an alternative to **polyurethane** and silicone raw materials being taken off the market. The company decided in late March to expand beyond agreements with Medtronic and Bard and make its Chronoflex commercially available to other device manufacturers.

Under a May 1992 agreement, Medtronic was given exclusive rights to use Chronoflex in pacemaker applications. Medtronic currently is testing the material for pacer applications. Bard's vascular systems division has exclusive rights to use Chronoflex in central venous catheters, chronic

vascular access catheters and **infusion** port systems. A third company, Vygon S.A., is studying Chronoflex in several types of catheters.

The Medtronic and Bard agreements apply only to the solid, extrudable form of the material, called Chronoflex AL. PolyMedica does not have any agreements for Chronoflex AR, the liquid form of the material used in solution casting.

PolyMedica says it has received over 800 inquiries from manufacturers regarding Chronoflex over the past several months and is in the process of responding to them. The company is telling prospective customers that it will supply them with Chronoflex as long as they agree not to use the material in the areas in which Medtronic and Bard own exclusive rights.

Animal testing conducted by PolyMedica demonstrates that Chronoflex is biocompatible and biostable, according to the company. The firm also claims that, unlike Pellethane, Biomer, and Thermedic's Tecoflex polymer, Chronoflex resists environmental stress cracking because it is ether-free.

In addition, because it is aliphatic and not aromatic, Chronoflex softens in the body more than Corethane, making it more amenable to soft tissue applications such as in-dwelling catheters, according to PolyMedica.

While companies like Corvita and PolyMedica are promoting their **polyurethane** materials as substitutes for silicone and other polymers, several pacemaker manufacturers say they plan to continue using silicone as well as **polyurethane** materials. In addition to pacer leads and connectors, silicone is used in a variety of devices such as small- **joint prostheses** , penile **implants** and hydrocephalus shunts.

32/7,K/4 (Item 1 from file: 198)
DIALOG(R)File 198:Health Devices Alerts(R)
(c) 2004 ECRI-nonprft agncy. All rts. reserv.
00703362 ABS-36716 SUBFILE: ABS
PRODUCT(s): 16-150 **PROSTHESES** , **JOINT** , **HIP** , TOTAL
The authors discuss device-related side effects and recent developments to reduce adverse reactions caused by urethral catheters, coronary stents, and total **hip endoprostheses** that serve as local drug-delivery systems. The authors state that total **hip endoprostheses** increase susceptibility to surrounding tissue damage, infection, and aseptic loosening. Recent approaches to control these complications include the controlled release of antimicrobial agents through matrix bonding and **impregnating** bone cements with antimicrobial gentamicin to prevent infections in total **hip** replacements. Drawbacks to coronary stents include the need for antiplatelet or anticoagulation therapy, unfavorable interactions between stents and unstable or thrombus-loaded plaque, and intimal hyperplasia. The authors state that modifying the stent surface with plasma treatment or antithrombotic agents may decrease thrombosis, that covering the stent with a biological conduit can reduce the interaction between stent and thrombus-loaded plaque, and that radioactive stents or stents with an antiproliferative drug can overcome intimal hyperplasia. The authors also state that coronary stents can provide prolonged local drug administration, including antithrombotic agents and anti-inflammatory drugs. Common urethral catheter complications include infection and incrustation. The authors state that research into new materials for urethral catheters includes soft **polyurethanes** , silicones, copolymers of these materials, and hydromers, which may reduce incrustation. Further strategies for reducing incrustation and infection involve **impregnating** the surface of the catheter with antimicrobial drugs. The authors state that for wound dressings, **polyurethane** foams, alginates, and dressings containing activated charcoal have been beneficial for exudation and cleaning of

wounds. Hydroactive wound dressings that retain exudate and create a moist environment have demonstrated signs of accelerating reepitheliazation and angiogenesis, reducing pain and infection rates. The authors state that recent research on biological skin equivalents includes epidermis, dermis, and combined epidermis-dermis equivalents. The authors conclude that a reliable sustained-release system for these devices is necessary for drug treatment to work and is prudent for the prevention of device-associated infections.
PRODUCT(s): 16-150 **PROSTHESES** , **JOINT** , **HIP** , TOTAL
COMMON DEVICE NAME: 1) Total **Hip** **Endoprostheses** ; (2) Coronary Stents; Methyl Methacrylate Bone Cement: (3) Palacos, (4) Septopal; (5) Urethral Catheters; Synthetic Wound Dressings: (6) Activated Charcoal, (7) Alginate, (8) **Polyurethane** Foam

32/7,K/6 (Item 2 from file: 319)
DIALOG(R)File 319:Chem Bus NewsBase
(c) 2004 Elsevier Eng. Info. Inc. All rts. reserv.
00135658
Medical materials: the soft touch.
Materials Edge n 11 p 55-63
DATE: 31 May 1989
AVAILABILITY: Metal Bulletin Journals Ltd (Metal Bulletin PLC), Park House, 3 Park Terrace, Worcester Park, Surrey KT4 7HY. Tel:01 330 4311. Telex: 21383.
DOCUMENT TYPE: Journal (overview 900+ words) ISSN: 0952-5211
LANGUAGE: English
ABSTRACT: This article describes the use of man made products to replace bad bones, blood vessels, heart valves, **hip** **joint** , and ligaments. Novel polymers and technologies are beginning to push synthetic materials into a new era where artificial devices begin to act more like Nature's own. The first artificial material to be used for vascular operation were polyethylene terephthalate(PET) fibre developed by ICI and then marketed by Du Pont under the Dacron tradename. More recently Du Pont's Teflon PTFE has been used. Only 2 products have emerged. Outright as being suitable for this type of medical application. Vascutek, the UK's leading manufacturers of PET based vascular **prostheses** has recently developed a composite graft which consists of the company's own Triaxid range of PET **prostheses** **impregnated** with bovine collagen gelatin. About 15 years ago Johnson & Johnson started marketing a synthetic ligament made from carbon fibre, however these are brittle and lack elasticity even when coated with a polymer. Recently, Gore and Associates has announced a new expanded PTFE GoreTex ligament. Polymer membranes are being designed to help in transplants. One problem is getting government approved for new materials, especially from the FDA. Also companies cannot necessarily afford the R&D costs or the potential liability costs. **Polyurethanes** are compatible with blood, and therefore research is being carried out on their use for synthetic arteries.
DESCRIPTOR(S): Pharmaceuticals, **Prosthetics** , and Medical Chemistry...
...SUBSTANCE: **polyurethanes**

34/7,K/1 (Item 1 from file: 198)
DIALOG(R)File 198:Health Devices Alerts(R)
(c) 2004 ECRI-nonprft agncy. All rts. reserv.
00686595 ABS-D3944 SUBFILE: ABS
PRODUCT(s): 13-177 PROSTHESES, BLOOD VESSEL, ARTIFICIAL
The authors discuss the **Chronoflex** (CF) small-bore polyurethane vascular

graft with antithrombin properties, which are achieved with covalent linkage of recombinant hirudin (rHir) to the graft surface. A precast 4 mm internal diameter CF graft was **dipped** into carboxylated polymer solutions for 30 min, while untreated CF grafts and CF grafts were **dipped** into 1% dimethyl acetamide (CF{1%}) and used as controls. The authors state that covalent linkage of iodine-125 (I-125)-canine serum albumin (CSA) to carboxylic acid group (cPU) segments using 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride cross-linker was 10-fold, 7-fold, and 9-fold greater than linkage to CF, CF(1%), and cPU controls, respectively. They state that I-125-rHir linkage to the cPU-CSA-succinimidyl 4(N-maleimidomethyl) cyclohexane-1-carboxylate surface was significantly greater than that to controls with nonspecifically or covalently bound CSA without the cross-linker. The authors conclude that I-125-rHir covalently linked to a small-diameter polyurethane graft inhibits and binds significantly greater amounts of I-131-thrombin than controls. They add that in vitro evaluation of surface-bound rHir and in vivo evaluation of surface antithrombin and antimitogenic properties is needed.
COMMON DEVICE NAME: **Chronoflex** Polyurethane Vascular Grafts

34/7,K/2 (Item 2 from file: 198)
DIALOG(R)File 198:Health Devices Alerts(R)

00686593 ABS-D3943 SUBFILE: ABS
PRODUCT(s): 13-177 PROSTHESES, BLOOD VESSEL, ARTIFICIAL
The authors evaluated the **Chronoflex** (CF) small-diameter polyurethane graft that contains reactive sites for protein binding in an in vitro study. A precast 4 mm internal diameter CF graft was **dipped** into carboxylated polymer solutions for 30 min, while untreated CF grafts and CF grafts were **dipped** into 1% dimethyl acetamide (CF{1%}) and used as controls. The authors state that the CF graft maintained porosity comparable to that of untreated grafts after carboxylated polyurethane (cPU) binding. They state that creation of accessible carboxylic acid groups occurred mainly in the luminal and capsular surfaces. cPU segments had a 3.7-fold and 5.4-fold increase in carboxylic acid groups compared to CF and CF(1%) controls, respectively. The authors conclude that the reactive sites of the CF small-bore vascular graft are acceptable for protein binding and that the reactive sites allow for covalent linkage of anticoagulants.

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File 481:DELPHES Eur Bus 95-2004/Feb W5
File 624:McGraw-Hill Publications 1985-2004/Mar 12
File 635:Business Dateline(R) 1985-2004/Mar 13
File 129:PHIND(Archival) 1980-2004/Mar W1
File 135:NewsRx Weekly Reports 1995-2004/Mar W1
File  20:Dialog Global Reporter 1997-2004/Mar 15
Set     Items   Description
S1      42932   PROSTHES?S OR ENDOPROSTHES?S OR PROSTHETIC? OR ENDOPROSTHE-
             TIC? OR IMPLANT? ?
S2    2279504   JOINT? ? OR ELBOW? ? OR HIP OR HIPS OR KNEE OR KNEES OR SH-
             OULDER? ? OR DIARTHROSIS OR ARTHRODIA
S3          4   SINTER?(2W)COAT???
S4      50183   BEAD OR BEADS OR PARTICLE? ?
S5         23   NONSPHERICAL? OR NON()SPHERICAL?
S6    1319733   LUBRICANT? ? OR LUBRICIOUS OR LUBRICATING OR OIL OR OILS
S7     222012   CAPSUL? OR ENCAPSUL? OR POD OR PODS OR HULL OR HULLS
S8    1825328   OPENING? ? OR APERTURE? ? OR OUTLET? ? OR SLOT OR SLOTS OR
             HOLE OR HOLES
S9     199499   IMPREGNAT? OR IMBUE??? OR IMBUING OR INFUSE? ? OR INFUSING
             OR INFUSION? ? OR SUFFUS??? OR SUFFUSIONS OR SATURAT??? OR SO-
             AK???
S10        44   SURFACE()HARDEN?
S11     11827   LUBRICITY OR LUBRICIOUS? OR LUBRICAT?
S12     16537   POLYURETHANE? OR POLYCARBONATE? OR POLYETHER? ?
S13    130125   (DIP OR BEAD)()COAT??? OR DIPS OR DIPPED OR DIPPING
S14       262   CHRONOTHANE OR CHRONOFLEX OR ELAST()EON OR ELASTEON OR BIO-
             NATE OR CARBOSIL OR TECHOTHANE OR TECOTHANE OR TECOFLEX OR CA-
             RBOTHANE
S15      3560   S1(3N)S2
S16      5137   S1(S)S2
S17         1   S3(S)S4
S18         0   S16 AND S17
S19         3   S3 NOT S17
S20         3   RD (unique items) [not relevant]
S21       201   S6(S)S7(S)S8
S22         0   S16 AND S21
S23         2   S1 AND S21 [too recent]
S24       491   S6()S7 OR S6()S8
S25         0   S16 AND S24
S26         3   S24 AND S1
S27         1   S26 NOT S23 [too recent]
S28       222   S9(S)S10:S12
S29         2   S16 AND S28 [too recent]
S30        15   S1 AND S28
S31        13   S30 NOT S29
S32        11   RD (unique items)
S33        11   S32/2001:2004
S34         0   S13(S)S14
S35         2   S13 AND S14 [too recent]

 17/9/1     (Item 1 from file: 129)
DIALOG(R)File 129:PHIND(Archival)
(c) 2004 PJB Publications, Ltd. All rts. reserv.
00010234
Developments in research
  Clinica 51 p11, October 01, 1982 (19821001)
```

WORD COUNT: 181

A porous implantable oralprosthesis (especially a tooth root, an edentulous ridge, or a section of jaw bone) developed by Medical Biological Sciences Inc (US) is made from a moulding of **sintered** polymeric **particles** **coated** with a hydrophilic material. The particles vary in size with an area of coarse porosity where the prosthesis interfaces with bone tissue, and an area of fine porosity at the interface with soft tissue. The prosthesis is biologically compatible and is integrated into the bone and gum tissue by penetration of tissue growth. It can be produced rapidly, eg 1 hour for an entire tooth with a crown, and about 21.5 mins for a tooth root which can be placed directly into a newly extracted cavity.

An antiseptic adhesive composition developed by E R Squibb & Sons Inc (US) contains a rubbery elastomer, a hydrocolloid, and one or more antiseptics. The inclusion of the antiseptic (eg an iodophor, a phenolic, a mercurial, nitrofurazone or chlorhexidine) prevents bacterial overgrowth without affecting the healing properties of the composition, which is reported to be particularly useful for dermal ulcers or burns.

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File 350:Derwent WPIX 1963-2004/UD,UM &UP=200417
File 347:JAPIO Nov 1976-2003/Nov(Updated 040308)
File 371:French Patents 1961-2002/BOPI 200209
Set     Items   Description
S1      60708   PROSTHES?S OR ENDOPROSTHES?S OR PROSTHETIC? OR ENDOPROSTHE-
             TIC? OR IMPLANT? ?
S2     415809   JOINT? ? OR ELBOW? ? OR HIP OR HIPS OR KNEE OR KNEES OR SH-
             OULDER? ? OR DIARTHROSIS OR ARTHRODIA
S3       1438   SINTER?(2W)COAT???
S4     647223   BEAD OR BEADS OR PARTICLE? ?
S5       1654   NONSPHERICAL? OR NON()SPHERICAL?
S6     675566   LUBRICANT? ? OR LUBRICIOUS OR LUBRICATING OR OIL OR OILS
S7     114294   CAPSUL? OR ENCAPSUL? OR POD OR PODS OR HULL OR HULLS
S8    2827930   OPENING? ? OR APERTURE? ? OR OUTLET? ? OR SLOT OR SLOTS OR
             HOLE OR HOLES
S9     312691   IMPREGNAT? OR IMBUE??? OR IMBUING OR INFUSE? ? OR INFUSING
             OR INFUSION? ? OR SUFFUS??? OR SUFFUSIONS OR SATURAT??? OR SO-
             AK???
S10      4152   SURFACE()HARDEN?
S11    133511   LUBRICITY OR LUBRICIOUS? OR LUBRICAT?
S12    334928   POLYURETHANE? OR POLYCARBONATE? OR POLYETHER? ?
S13     69665   (DIP OR BEAD)()COAT??? OR DIPS OR DIPPED OR DIPPING
S14        45   CHRONOTHANE OR CHRONOFLEX OR ELAST()EON OR ELASTEON OR BIO-
             NATE OR CARBOSIL OR TECHOTHANE OR TECOTHANE OR TECOFLEX OR CA-
             RBOTHANE
S15      5037   S1(3N)S2
S16    406782   IC=(A61L OR A61F OR A61B)
S17      8361   S1 AND S2
S18         2   S3 AND S4 AND S5
S19         0   S17 AND S18
S20         2   (S3(S)S4 AND S17) NOT S18
S21       759   S6 AND S7 AND S8
S22         0   S17 AND S18
S23     76843   S6(S)S7 OR S6(S)S8
S24        15   S17 AND S23
S25        15   S24 NOT (S18 OR S20)
S26     10241   S9(S)S10:S12
S27        11   S17 AND S26
S28        11   S27 NOT (S18 OR S20 OR S25)
S29         0   S13(S)S14
S30         4   S13 AND S14
S31         0   S1AND S30
S32         1   S1 AND S30
S33         3   S30 NOT S32

 18/7,K/1     (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004  Thomson Derwent. All rts. reserv.
010253180    **Image available**
WPI Acc No: 1995-154435/199520
   Sintered  coating  for implantable prosthesis - has two sets of
  particles  having different mean dia, with size and number of  particles
  chosen so as to produce matrix of smaller  particles .
Patent Assignee: JOINT MEDICAL PROD CORP (JOIN-N)
Inventor: CONTA R L; DECARLO A F; NOILES D G
Number of Countries: 001  Number of Patents: 001
```

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
US 5405389	A	19950411	US 92838577	A	19920219	199520	B
			US 937802	A	19930122		
			US 9319417	A	19930218		

Priority Applications (No Type Date): US 9319417 A 19930218; US 92838577 A 19920219; US 937802 A 19930122

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5405389	A		8	A61F-002/28	Cont of application US 92838577 CIP of application US 937802 CIP of patent US 5263986

Abstract (Basic): US 5405389 A

The prosthesis is for implantation in a body having an outer surface at last a portion of which has a **sintered coating** comprising a random mixture of at least two sets of metallic **particles** . One of two sets are composed of spherically-shaped **particles** and another of the two sets are composed of **non - spherically** -shaped **particles** . The coating comprises less than two complete layers of **particles** , and there are sintered junctions between the spherically-shaped **particles** and the **non-spherically**-shaped **particles** .

The set composed of spherically-shaped **particles** has a smaller mean diameter of the set composed of **non-spherically**-shaped **particles** .

ADVANTAGE - Provides sintered coatings which provide a high degree of surface friction at the coating-bone interface. It is a further object of the invention to provide improved coatings which can be readily manufactured using conventional techniques.

Dwg.3A/7

Derwent Class: P32

International Patent Class (Main): A61F-002/28

18/7,K/2 (Item 2 from file: 350) a duplicate of 13/3,AB/7 page 7

DIALOG(R)File 350:Derwent WPIX

009594526

WPI Acc No: 1993-288072/199336

Implantable prostheses having rough surface - has sintered coating of metal particles which have particle size distribution which is at least bimodal and can be mixt. of spherical and non - spherical particles

Patent Assignee: JOINT MEDICAL PROD CORP (JOIN-N)

Inventor: **CONTA R L**; DECARLO A F; NOILES D G

Number of Countries: 019 Number of Patents: 010

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9316656	A2	19930902	WO 93US2008	A	19930218	199336	B
US 5263986	A	19931123	US 92838577	A	19920219	199348	
			US 937802	A	19930122		
EP 589008	A1	19940330	EP 93907250	A	19930218	199413	
			WO 93US2008	A	19930218		
US 5358533	A	19941025	US 92838577	A	19920219	199442	
			US 937059	A	19930121		
JP 6509262	W	19941020	JP 93515132	A	19930218	199501	
			WO 93US2008	A	19930218		
WO 9316656	A3	19940623				199517	
EP 589008	A4	19951227	EP 93907250	A		199627	
EP 589008	B1	20011017	EP 93907250	A	19930218	200169	

			WO 93US2008	A	19930218	
DE 69330932	E	20011122	DE 630932	A	19930218	200201
			EP 93907250	A	19930218	
			WO 93US2008	A	19930218	
ES 2165854	T3	20020401	EP 93907250	A	19930218	200233

Priority Applications (No Type Date): US 92838577 A 19920219; US 937802 A 19930122; US 937059 A 19930121

Cited Patents: No-SR.Pub; EP 149425; EP 179736; US 4542539; US 3605123; US 4156943; US 4206516; US 44790852; US 4629464; US 4813965

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9316656	A2	E	23	A61F-000/00	
Designated States (National): CA JP					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
US 5263986	A		6	A61F-002/28	Cont of application US 92838577
EP 589008	A1	E		A61L-027/00	Based on patent WO 9316656
Designated States (Regional): DE ES FR GB IT					
US 5358533	A		6	A61F-002/32	Div ex application US 92838577 Div ex patent US 5263986
JP 6509262	W			A61F-002/34	Based on patent WO 9316656
EP 589008	A4			A61F-000/00	
EP 589008	B1	E		A61L-027/06	Based on patent WO 9316656
Designated States (Regional): DE ES FR GB IT					
DE 69330932	E			A61L-027/06	Based on patent EP 589008 Based on patent WO 9316656
ES 2165854	T3			A61L-027/06	Based on patent EP 589008

Abstract (Basic): WO 9316656 A

A prosthesis (A) has an outer surface at least partly coated with sintered metal **particles** which form less than two layers and have at least a bimodal size distribution such that the smaller **particles** form a matrix contg. sepd. larger **particles** projecting above the matrix. There are sintered boundaries between large and small **particles** .

The substrate surface can be stepped. The predetermined ratio of diameters is 2-7:1 and is esp. 2.5:1 with sizes of 630 micron and 250 mciron. The **particles** are mixed in the vol. ratio 4-40:1 small to large and esp. 16:1, or the sized fractions are mixed in equal vols. In the coating with **particles** of different shapes, the spherical **particles** are 210-250 micron and the **non - spherical particles** are 250-600 micron dia.; the number ratio of spherical to **non - spherical** is 1-20:1 or is 1:1 - or there is a greater vol. of **non - spherical** to spherical **particles** in the ratio 70:30.

ADVANTAGE - The use of a mixt. of **particle** size fractions and opt. of different shapes gives a rough surface to provide a more stable fixation in the prepd. cavity. The coating is applied by existing method

Dwg.0/9

Abstract (Equivalent): US 5263986 A

An implantable prosthesis has an outer surface with a coating of sintered metal **particles** having a bimodal size distribution with smaller and larger **particle** size peaks. The coating has less than two complete layers of **particles** with smaller **particles** forming a matrix in which larger **particles** are distributed.

The larger **particles** are spaced from each other and project above the matrix and there are sintered junctions between smaller and larger

particles . There is pref. a single layer and this is applied to a stepped part of the outer surface. The mean diameters are pref. 250 and 630 microns, and the ratio of numbers of smaller to larger **particles** is about 16:1.

USE/ADVANTAGE - E.g. for an acetabular cup, provides a high degree of surface friction at the coating-bone interface and can readily be produced using conventional techniques.

(Dwg.1a/7)

US5358533 Acetabular prosthesis for implantation in bone has a spherical outer surface, at least part of which is stepped (50), such that the cross-sectional shape of each step is oriented similarly w.r.t. a radial line (52) emanating from the centre (54) of the sphere. A **sintered coating** is applied with at least a bimodal size distribution of **particles** .

ADVANTAGE - High level of surface friction provides stable fixation in a body cavity.

(Dwg.7/6

Derwent Class: D22; M13; P32; P34
International Patent Class (Main): A61F-000/00; A61F-002/28; A61F-002/32; A61F-002/34; A61L-027/00; A61L-027/06
International Patent Class (Additional): A61F-002/00; A61F-002/02; A61F-002/30; A61F-002/36

20/7,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
014086616 **Image available**
WPI Acc No: 2001-570830/200164
Modular hip prosthesis **for use in total** hip **arthroplasty field comprises proximal segment including neck lockingly engageable with femoral head component, distal segment and metaphyseal segment**
Patent Assignee: EXACTECH INC (EXAC-N); FERNANDEZ J (FERN-I); MAULDIN C M (MAUL-I); MILLER G J (MILL-I)
Inventor: FERNANDEZ J; MAULDIN M; MILLER G J; MAULDIN C M
Number of Countries: 032 Number of Patents: 008
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200167997	A1	20010920	WO 2001US8033	A	20010313	200164	B
US 6319286	B1	20011120	US 2000524341	A	20000313	200174	
AU 200145677	A	20010924	AU 200145677	A	20010313	200208	
US 20020038148	A1	20020328	US 2000524341	A	20000313	200225	
			US 20014207	A	20011101		
EP 1191906	A1	20020403	EP 2001918624	A	20010313	200230	
			WO 2001US8033	A	20010313		
CN 1366457	A	20020828	CN 2001800924	A	20010313	200282	
TW 487568	A	20020521	TW 2001105689	A	20010312	200320	
JP 2003526454	W	20030909	JP 2001566467	A	20010313	200360	
			WO 2001US8033	A	20010313		

Priority Applications (No Type Date): US 2000524341 A 20000313; US 20014207 A 20011101
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200167997	A1	E	34	A61F-002/28	

Designated States (National): AU CA CN JP
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR

US 6319286 B1 A61F-002/28
AU 200145677 A A61F-002/28 Based on patent WO 200167997
US 20020038148 A1 A61F-002/36 Cont of application US 2000524341
Cont of patent US 6319286
EP 1191906 A1 E A61F-002/28 Based on patent WO 200167997
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR
CN 1366457 A A61F-002/28
TW 487568 A A61F-002/28
JP 2003526454 W 53 A61F-002/28 Based on patent WO 200167997

Abstract (Basic): WO 200167997 A1

NOVELTY - A modular **hip** **prosthesis** (10) comprises proximal (12), distal (16) and metaphyseal (14) segments. The proximal segment includes a neck (20) lockingly engage-able with femoral head component and a male tapered portion (25). The distal segment has a male tapered portion (43). The metaphyseal segment has a bone engaging outer surface portion, and an axial bore (27) including female tapered portions (I,II).

DETAILED DESCRIPTION - A modular **hip** prosthesis (10) comprises a proximal segment (12), a distal segment (16) and a metaphyseal segment (14). The proximal segment includes a neck (20) lockingly engage-able with a femoral head component and a male tapered portion (25), extending distally of neck. The distal segment has a proximal end (16a), a distal tip (16b), and a male tapered portion (43), adjacent to the proximal end (16a). The metaphyseal segment has a proximal end, distal end, a bone engaging outer surface portion, and an axial bore (27) including first and second female tapered portions (I, II). The female tapered portion (I) is located adjacent to proximal end of metaphyseal segment and dimensionally configured to lockingly engage the male tapered portion of the proximal segment. Female tapered portion (II) is located adjacent to distal end of the metaphyseal segment and is dimensionally configured to lockingly engage the male tapered portion of the distal segment.

USE - In total **hip** arthroplasty field.

ADVANTAGE - The three segmented modular **hip** stem (**prosthesis**) allows full size interchangeability between component parts, and provides superior resistance to component disengagement during use. The **prosthesis** provides superior resistance to component dissociation by increasing taper contact area and reducing contact stresses due to bending and torsional loads at the taper junctions. The **prosthesis** also enables intra-operative flexibility through its modularity, full interchangeability of any segment with any other segment, adjustability of each segment for anti-version and retroversion independent of the position of other segments, and thus allows a universal design for left and right **hip** applications. Independent selection of leg length and offset of the **prosthesis** , primary and revision applications with the same system, allows the surgeon to tailor the device to the anatomy of the patient even in the face of revision surgery that might leave a bone deficit. The **prosthesis** enables use of all styles and sizes of femoral head components. The screw, dimensionally configured to pass through the aligned bores, is thread-ably engaged with the threaded bore formed in the distal segment to further enhance locking engagement of the **prosthesis** components as desired. The system includes off-the-shelf flexibility for customerizing proximal and distal canal filling, as well as accommodating difficult situations of proximal deformity and bone loss. The blended conical taper/parabolic taper geometry of each tapered portion ensures sufficient taper contact area,

and decreases the inter-facial contact stresses and internal body stresses under bending loading of male/taper junction. The geometry of metaphyseal segment increases torsional stability of the component during use in the body, and provides better fill of the proximal intermedulary canal. The coronal slot increases the flexibility of the distal segment and inhibits the concentration of stresses at distal tip when **prosthesis** is loaded, and allows a **prosthesis** to better accommodate the curvature of intermedulary canal.

DESCRIPTION OF DRAWING(S) - The figure shows an exploded, perspective view of the modular **hip prosthesis** .

Prosthesis (10)
Proximal segment (12)
Metaphyseal segment (14)
Distal segment (16)
Proximal end of distal segment (16a)
Distal end of distal segment (16b)
Screw (18)
Neck (20)
Extension unit (24)
Male tapered portion of proximal end (25)
Cylindrical nipple (26)
Aligned axial bore (27)
Trapezoidal truncated pyramidal section (30)
Conical section (31)
Outer ring (37)
Sharpened longitudinal flutes (40)
Coronal slot (41)
Threaded axial bore (42)
Male tapered portion of distal end (43)
pp; 34 DwgNo 1/8

Derwent Class: D22; P32
International Patent Class (Main): A61F-002/28; A61F-002/36
International Patent Class (Additional): A61F-002/36
Technology Focus:

... Preferred **Prosthesis** : The proximal segment of the **prosthesis** further includes an axial bore and is engageable with proximal end of metaphyseal segment to...

...The **prosthesis** further comprises a screw (18) dimensionally configured to pass through aligned bores of the proximal...

...distal and metaphyseal segments are selected from a group consisting of a grit blasted surface, **sintered** metal **bead coating** , hydroxylapatite coating, plasma spray coating, bio-glass ceramic coating, demineralized bone and carrier, and growth...

20/7,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

007294790
WPI Acc No: 1987-291797/198742
Bone prosthesis with porous coating for fixation by tissue ingrowth - having controlled pore size to favour bone ingrowth over fibrous tissue and improve resistance to failure
Patent Assignee: PFIZER HOSPITAL PROD GROUP INC (PFIZ); HOWMEDICA INC (HOWN)
Inventor: KENNA R V
Number of Countries: 002 Number of Patents: 005

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
CA 1227002	A	19870922	CA 421731	A	19830216	198742 B
US 4834756	A	19890530	US 85786978	A	19851015	198926
US 5192324	A	19930309	US 82350130	A	19820218	199312
			US 85786978	A	19851015	
			US 89356976	A	19890525	
			US 91635394	A	19910102	
US 5441537	A	19950815	US 82350130	A	19820218	199538
			US 85786978	A	19851015	
			US 89356976	A	19890525	
			US 91635394	A	19910102	
			US 92988085	A	19921204	
US 5192324	C1	20030225	US 82350130	A	19820218	200323
			US 85786978	A	19851015	
			US 89356976	A	19890525	
			US 91635394	A	19910102	

Priority Applications (No Type Date): US 82350130 A 19820218; US 89356976 A 19890525; US 91635394 A 19910102; US 92988085 A 19921204

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
CA 1227002	A		19		
US 4834756	A		6		
US 5192324	A		6	A61F-002/28	Div ex application US 82350130 Cont of application US 85786978 Cont of application US 89356976 Div ex patent US 4550448 Cont of patent US 4834756
US 5441537	A		6	A61F-002/02	Div ex application US 82350130 Cont of application US 85786978 Cont of application US 89356976 Cont of application US 91635394 Div ex patent US 4550448 Cont of patent US 4834756 Cont of patent US 5192324
US 5192324	C1			A61F-002/28	Div ex application US 82350130 Cont of application US 85786978 Cont of application US 89356976 Div ex patent US 4550448 Cont of patent US 4834756

Abstract (Basic): CA 1227002 A

A bone **prosthesis** comprises a metallic substrate, at least part of which is bonded to porous coating formed by spherical particles of the same material bonded to each other and to the substrate at the points of contact to provide interconnected porosity extending to the substrate surface. The coating comprises two layers of particles each having the same particle size. Size and distribution are determined by mercury intrusion porisimetry and the ave. pore size is 350-500 microns and the vol. occupies by pores is below 250 microns and not above 30% of the total porosity vol.

Pref. the coating has thickness 1.3-1.5mm with porosity of 35-40 vol.% and is formed from particles of +30 to -20 U.S. Standard Mesh. The coating is obtd. by applying a binder to the substrate, followed by a layer of particles which is heated in vacuum to induce point bounding. The process is repeated, after which the assembly is further heated in vacuum to produce secure bonding.

USE - **Prosthesis** for fixation by bone tissue ingrowth esp. **knee** or **hip joint** components; bone plates and bridges: bone staples: dental **implants** : intra medullary nails.

Dwg./4

Abstract (Equivalent): US 5441537 A

Method of affixing a porous coating (30) having two layers (22, 24) to at least a portion (5a) of the surface of substrate (20). Each of the layers (22, 24) consists of a multiplicity of ball shaped particles of metallic material bonded together at their points of contact. The method involves: (a) A binder is applied to at least a portion (5a) of the substrate (20) surface; (b) A first monolayer (22) of the particles (16) is applied to the substrate surface (5a). The first monolayer (22) adheres to the substrate (20) via the binder. (c) The coated substrate (20) is heated under vacuum for a time and a temp. sufficient to establish point bonding between different particles (16) in the layer (22), and between the particles (16) in the layer (22) and the surface (5a) of the substrate. (d) A binder is applied to the surface of the layer (22). (e) Second monolayer (24) of the particles (18) is applied to the surface of the first layer (22). The second surface (24) adheres to the first layer (22) via the binder. (f) The coated substrate of (e) is heated under vacuum for a time at a sufficient temp. to establish point bonding between particles (16) in the first layer (22) and particles (18) in the second layer (24). Layer (24) inherently has a greater porosity than the first layer (22). (g) The coated substrate of (f) is sintered under vacuum for a time and at a temp. sufficient to promote formation of secure junctions between different particles in the porous coating (30), and between particles in the first monolayer (22) and the substrate (20).

USE/ADVANTAGE - Method for affixing a porous coating having two layers to at least a portion of the surface of a substrate of a solid metallic material to form a bone **prosthesis** having a porous coating for bore ingrowth or interlocking with bone cement; use in forming **knee joint prosthesis** . A high resistance to failure at the coating substrate and bone coating interfaces is achieved. Because of the large average por size in the porous coating and the small percentage of porosity vol. occupied by small pores, hard bone tissue grows extensively into the coating. This assures a strong and secure coating, while ingrowth of fibrous tissue is minimised.

Dwg.2/4

US 5192324 A

Bone **prosthesis** comprises a substrate of a metallic material and a porous coating of the metallic material bonded to and extending over a portion of the substrate surface.

Porous coating consists of 1st and 2nd layers of the particles, and no additional layers of the particles. Particles in the 1st layer are bonded to the substrate and the 1st layer is bonded to the 2nd layer. Particles in the 1st and 2nd layers are distributed at uniform surface densities and are of uniform sizes. Between the particles are connected interstitial pores having average pore size of 350-500 microns.

USE/ADVANTAGE - Strong and fatigue-resistant fixation of the **prosthesis** to the living bone of a patient is obtd. by tissue ingrowth into the porous coating. (Dwg.2/4)

US 4834756 A

Surface of at least part of a solid metallic bone **prosthesis** surface is coated with a porous coating of numerous **ball shaped metallic particles** bonded together at points of contact by (A)

applying a binder to the substrate and layer of **particles** at a virtually uniform density and heating the layer under vacuum to effect bonding between the **particles** to the substrate and to each other, (B) forming a 2nd layer in the same manner, (C) **sintering** the **coated** substrate by heating to ensure an effective bond to the substrate and between the layers. The porosity and average pore size in the 2nd layer is pref. greater than in the 1st layer.

USE/ADVANTAGE - **Knee joint prosthesis** functioning similarly to the natural **knee** ; the fixation of the **prosthesis** is highly resistant to failure. (6pp)p

Derwent Class: D22; M13; P32
International Patent Class (Main): A61F-002/02; A61F-002/28
International Patent Class (Additional): A61F-002/00

25/26,TI/9 (Item 9 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
014228303
WPI Acc No: 2002-049001/200206
New composition comprising retinoic acid receptors antagonist useful for e.g. promoting or inhibiting osteogenesis, for treating bone abnormalities resulting from injury, toxicity or disease, or for ex vivo bone tissue engineering

25/26,TI/11 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
013742160
WPI Acc No: 2001-226390/200123
Amorphous polyether glycols useful in the preparation of elastomers, thermoset plastic and coatings are obtained from bis-substituted fluorinated oxetane monomers

25/7,K/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
015168986 **Image available**
WPI Acc No: 2003-229514/200322
Repair of cartilaginous tissue defect in knee joint **cavity, and meniscus, involves implanting scaffold into defect and administering biological lubricant to defect**
Patent Assignee: DEPUY PROD INC (DEPU-N)
Inventor: MALAVIYA P; PLOUHAR P L; SCHWARTZ H E
Number of Countries: 100 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200307787	A2	20030130	WO 2002US22357	A	20020715	200322	B

Priority Applications (No Type Date): US 2002388724 P 20020614; US 2001305786 P 20010716
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200307787	A2	E	35	A61B-000/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU

ZA ZM ZW
Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW
Abstract (Basic): WO 200307787 A2

NOVELTY - Repair (M1) of cartilaginous tissue defect comprising implanting a scaffold into the defect and administering a biological lubricant to the defect, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a cartilage repair device (20) comprising naturally occurring extracellular matrix and a biological lubricant applied to the extracellular matrix; and

(2) making a cartilage repair device which involves wetting the naturally occurring extracellular matrix with the liquid biological lubricant to form a wet **implant** .

USE - (M1) is useful for repairing cartilaginous tissue defect in **knee joint** cavity and in meniscus.

ADVANTAGE - The combination of small intestine sub-mucosa and hyaluronic acid produces synergistic effect in cartilage repair. The defects in cartilaginous tissue are repaired efficiently and healed at high rate when compared to individual small intestine sub-mucosa and hyaluronic acid.

DESCRIPTION OF DRAWING(S) - The figure shows an inserted device in a position to be attached to the portions of the meniscus remaining after the injured portion is removed.

Device (20)

pp; 35 DwgNo 3/12
Derwent Class: B04; D22; P31
International Patent Class (Main): A61B-000/00
Technology Focus:

... Preferred Method: The implantation and administration take place during a single surgical procedure. The biological **lubricant** is post-operatively administered to the defect. The incision site created to **implant** the scaffold is closed and subsequently the biological **lubricant** is administered to the defect via injection. The device is saturated with a biological **lubricant** solution and rehydrated prior to implantation. A series of additional biological **lubricants** are injected to the area of the defect subsequent to the implanting and administering steps, preferably a first additional biological **lubricant** injection is injected two weeks subsequent to implantation and a second additional biological **lubricant** injection is injected four weeks subsequent to implantation. The defect in a meniscus is repaired...

...molecular weight of 300000-6000000 (2400000-360000) kDa. The naturally occurring extracellular matrix and biological **lubricant** are co-lyophilized. The biological **lubricant** portion is cross-linked onto the naturally occurring extracellular matrix portion. The extracellular matrix comprises a plug for positioning in the **opening** formed in damaged cartilage and is secured to an anchor. The **implant** is wet with the biological **lubricant** , packaged and terminally sterilized. The material selected from a bioactive agent, a biologically derived substance and cells are incorporated into the device. The biological **lubricant** is fluidized. The device comprises bioremodelable collagenous tissue matrix containing naturally occurring matrix...

25/7,K/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX

014724845 **Image available**
WPI Acc No: 2002-545549/200258
Endoprosthesis of the hip joint
Patent Assignee: TARTARSTAN RESTORATIVE TRAUMATOLOGY (TART-R)
Inventor: BIZYAEVA L N; GAFAROV KH Z; GIMMELFARB A L
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
RU 2183441	C2	20020620	RU 2000120709	A	20000726	200258	B

Priority Applications (No Type Date): RU 2000120709 A 20000726
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
RU 2183441	C2			A61F-002/32	

Abstract (Basic): RU 2183441 C2

NOVELTY - Device has head with neck and pedicle, cotyloid cavity as semispherical cup, **lubricating** fluid and cavity containing the **lubricating** fluid communicating with articulation slit and sealing insert located around the **prosthesis** head and attached to the cup end face with a ring member. The cavity is formed by meridian grooves made on the concave cup surface, cistern mounted on the cup pole, connecting pipes, canals and corrugated tubes manufactured from flexible material allowing contraction and tension passing inside of the cup wall and **opening** at its end face. The close ends are attached to neck bead and the other ones are mounted on connecting pipes. The grooves come together in the cistern and join the canals in the equator direction. The lubrication fluid matches the synovial fluid in viscosimetric properties.

USE - Medical engineering.

ADVANTAGE - Prolonged **prosthesis** service life. 3 dwg pp; 0 DwgNo 1/1

Derwent Class: P32
International Patent Class (Main): A61F-002/32

25/7,K/10 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX

013791097 **Image available**
WPI Acc No: 2001-275308/200129
Intervertebral fixing and articulated joint comprises plates fastened to surfaces of adjacent vertebrae and mobile element between
Patent Assignee: ZACOUTO F (ZACO-I); ZACUTO F (ZACU-I)
Inventor: ZACOUTO F; ZACUTO F
Number of Countries: 004 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
FR 2799638	A1	20010420	FR 9912812	A	19991014	200129	B
AU 200066513	A	20010426	AU 200066513	A	20001013	200129	
CA 2323706	A1	20010414	CA 2323706	A	20001013	200140	
US 6692495	B1	20040217	US 2000686797	A	20001012	200413	

Priority Applications (No Type Date): FR 9912812 A 19991014
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
FR 2799638	A1		24	A61F-002/44	
AU 200066513	A			A61F-002/44	
CA 2323706	A1	F	30	A61F-002/44	

US 6692495 B1 A61F-002/44
Abstract (Basic): FR 2799638 A1

NOVELTY - Intervertebral fixing and articulated **joint** comprises plates fastened to surfaces of adjacent vertebrae and mobile element between.

DETAILED DESCRIPTION - The fixing (F), designed to be implanted between two adjacent vertebrae (V1, V2), consists of two rigid plates (10, 11) with **holes** (15), attached to the facing surfaces of the vertebrae by fastenings (30) such as rods or screws, and at least one intermediate element (20) between them. Each intermediate element contains at least one mobile and/or deformable component (25), e.g. a bellows filled with silicone **oil** , which provides for a relative displacement of the rigid plates to form an artificial articulated **joint** and has a viscoelasticity which is preferably variable and especially by remote control. The fastenings are of greater length than the axial dimension between the vertebrae and are made in linked sections, especially clipping together. The plates and intermediate elements are made e.g. from titanium or stainless steel.

USE - Combatting vertebral instability, especially caused by degeneration.

ADVANTAGE - Fixes vertebrae without need for bone graft and is adjustable after being implanted.

DESCRIPTION OF DRAWING(S) - The drawing shows a diagrammatic cross-section of the **implant** .

Plates (10, 11)
Holes(20) Intermediate element (15)
Mobile component (25)
Fastenings (30)
Fixing (F)
Vertebrae (V1, V2)
pp; 24 DwgNo 1/17

Derwent Class: A96; D22; P31; P32
International Patent Class (Main): A61F-002/44
International Patent Class (Additional): A61B-017/70; A61F-002/46

25/7,K/12 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013663947
WPI Acc No: 2001-148159/200116
Artificial hip joint, has capsule of flexible material, e.g. polytetrafluoroethylene or polyethylene terephthalate fabric, fixed at one end to femoral part and at other end to acetabular part, so that head can move in socket
Patent Assignee: WOLTER D (WOLT-I); WALTER D (WALT-I)
Inventor: WOLTER D
Number of Countries: 027 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 19924676	A1	20001130	DE 1024676	A	19990529	200116	B
CA 2307993	A1	20001129	CA 2307993	A	20000510	200116	
EP 1057461	A1	20001206	EP 2000109206	A	20000428	200116	
JP 2001046411	A	20010220	JP 2000156533	A	20000526	200126	

Priority Applications (No Type Date): DE 1024676 A 19990529
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes

DE 19924676 A1 7 A61F-002/32
CA 2307993 A1 E A61F-002/32
EP 1057461 A1 G A61F-002/30
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2001046411 A 6 A61F-002/32
Abstract (Basic): DE 19924676 A1
NOVELTY - Artificial **hip joint** has a femoral part, an acetabular part and a **joint** capsule of flexible material.
DETAILED DESCRIPTION - Artificial **hip joint** has:
(a) a femoral part with a shaft for fixing in the marrow cavity of the femur and a head at the distal end of the shaft;
(b) an acetabular part for fixing in the pelvis with a socket forming the **joint** with the head of (a); and
(c) a **joint** capsule of flexible material, which is fixed to (a) at one end and (b) at the other end to allow the head to move in the socket and prevent wear extending outwards from the head into the socket.
USE - The product is a **hip joint prosthesis** .
ADVANTAGE - The cited construction reduces the tendency of the **joint** to become loose and increases its stability.
pp; 7 DwgNo 0/4
Derwent Class: A96; D22; P32
International Patent Class (Main): A61F-002/30; A61F-002/32
Technology Focus:
... Preferred **Joint** : The **capsule** is a bellow and is strengthened by at least one fold. The socket has an insert in which the bead bears. One end of the **capsule** is fixed to the insert and the other end to the ball and/or neck...
...the femoral part. In particular, a preassembled unit of an insert, a head and a **capsule** fixed to the insert at one end and the head and/or neck at the...
...head and/or neck in a conical connection with the shaft. The connection between the **capsule** and acetabular part and/or femoral part has a bead, groove and/or safety ring. The **capsule** may also have a tubular **outlet** . The **capsule** and/or **outlet** has a seal that can be opened to allow access to the inside of the **capsule** and a storage volume, preferably in a bulge of the **capsule** , which contains a substance fixing abrasive particles. The **capsule** contains a **lubricant** . The **prosthesis** also has electronic sensor(s) for determining the function of the **joint** . The sensor(s) is connected with a telemetric unit for monitoring measured data in the...

25/7,K/13 (Item 13 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
009587816 **Image available**
WPI Acc No: 1993-281362/199336
Hip joint prosthesis **with damping device - is formed with stack of disc springs inserted in hole in ball for neck** prosthesis .
Patent Assignee: FISCHER H (FISC-I); KOEHLER G (KOEH-I); WUENSCHEL J (WUEN-I)
Inventor: FISCHER H
Number of Countries: 001 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 4204979	A1	19930902	DE 4204979	A	19920219	199336	B

DE 4204979 C2 19950622 DE 4204979 A 19920219 199529
Priority Applications (No Type Date): DE 4204979 A 19920219
Patent Details:
Patent No Kind Lan Pg Main IPC Filing Notes
DE 4204979 A1 5 A61F-002/30
DE 4204979 C2 6 A61F-002/30
Abstract (Basic): DE 4204979 A

The **prosthesis** is fitted with a damping device which consists of a stack of disc springs (8). These are fitted in the chamber (5) formed between the end face of the neck (2) and the floor (6) of the blind hole and damp out any shock loads in the axial direction.

The dia. of each disc spring is such that when compressed flat the OD is smaller than the dia. of the **hole** (4) in the ball (1). The neck has a self **lubricating** cover (10) along its length.

USE/ADVANTAGE - The disc springs in the **hip joint prosthesis** are less susceptible to fatigue failure than the helical coil springs which are usually fitted.

Dwg.1/5

Abstract (Equivalent): DE 4204979 C

A **hip prosthesis** neck fitted to the implanted shaft carries a **joint** ball via an axially operating damping device. Damping is afforded by a plate spring (18) held in the blind bore (4) in the ball (1) and thus between shaft (1) and **joint** surfaces. The spring (8) is inserted between the endface (7) of the **prosthesis** neck (2) and the opposing bottom (6) of the ball bore (4), the diameter of the spring leaves (9) to be smaller than that of the bore part taking the spring. This reduction in leaf diameter equals their increase in radial diameter, eg. when under load.

The bore (4) diameter remains constant throughout and the neck (2) has a flexible peripheral cover (10) composed of a self-lubricating plastics jacket. The spring leaves are identical and built up appropriate to the body weight of the **prosthesis** wearer.

USE/ADVANTAGE - **Hip joint** surgery. Self-lubricating plastics jacket round **prosthesis** neck plus axially operating leaf spring combine low cost and durability with compactness.

Dwg.1/4

Derwent Class: P32
International Patent Class (Main): A61F-002/30
International Patent Class (Additional): A61F-002/36

25/7,K/14 (Item 14 from file: 350)
DIALOG(R)File 350:Derwent WPIX

009189008
WPI Acc No: 1992-316444/199239

Microcapsules for long term polypeptide release - comprises encapsulated water-in- oil emulsion contg. biodegradable polymer

Patent Assignee: TAKEDA CHEM IND LTD (TAKE)
Inventor: INOUE Y; OGAWA Y; OKADA H
Number of Countries: 004 Number of Patents: 005
Patent Family:
Patent No Kind Date Applicat No Kind Date Week
AU 9181794 A 19920806 AU 9181794 A 19910812 199239 B
BR 9103553 A 19920929 BR 913553 A 19910819 199244
NZ 239381 A 19921223 NZ 239381 A 19910813 199308
AU 645108 B 19940106 AU 9181794 A 19910812 199408

MX 183802 B 19970117 MX 91721 A 19910819 199816
Priority Applications (No Type Date): JP 9132302 A 19910131
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
AU 9181794	A		26	A61K-009/52	
AU 645108	B			A61K-009/52	Previous Publ. patent AU 9181794
BR 9103553	A			A61J-003/07	
NZ 239381	A			A61K-009/64	
MX 183802	B			A61K-009/052	

Abstract (Basic): AU 9181794 A

Prodn. of a microcapsule, designed for zero order release of a physiologically active polypeptide over a period of at least 2 months, comprises: (a) prepn. of a water in **oil** (W/O) emulsion, having inner aq. phase contg. 20-70% w/w of the polypeptide and an **oil** phase contg. a copolymer or homopolymer of average mol.wt. 7000-30000, and a lactic/glycolic acid ratio of 80:20 - 100:0; and (b) subjecting the W/O emulsion to **encapsulation** .

Polypeptides with at least two amino acids and mol.wt. 200-100000 are pref. employed. They include luteinising hormone releasing hormone (LH-RH) or water soluble analogues with mol.wt. of at least 1000, e.g. TAP-144, (pyr)-Glu-His-Trp-Ser- Tyr-D-Leu-Leu-Arg-ProNHEt, or thyrotropin releasing hormone (TRH) (all claimed).

USE/ADVANTAGE - The microcapsules are easily admin. as injections and **implants** , i.m., s.c., i.v., or at an organ, **joint** cavity, or lesion (e.g. a tumour). They avoid the necessity for frequent attention to a patient, e.g. a daily injection, and the rate of release is controlled by the mol.wt. of the polymer and the lactic/glycolic ratio. They also avoid the need for drug retaining substacnes, as used in prior art, although a drug retaining substance can be opt. added to the aq. phase. The microcapsule provides stady release of the drug over time without undesirable initial ''burst'', or underdosing until impregnation or decomposition of the coating matrix is steady or has started. The polymer used is biodegradable, leaving no residues at the end of treatment

Dwg.0/0

Derwent Class: A96; B04; B07
International Patent Class (Main): A61J-003/07; A61K-009/052; A61K-009/52; A61K-009/64
International Patent Class (Additional): A61K-009/050; A61K-009/50; A61K-009/66; A61K-037/002; A61K-037/02; A61K-037/43; A61K-047/30; A61K-047/44

28/26,TI/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
015514040
WPI Acc No: 2003-576187/200354
Repair of cartilaginous tissue defect involves implanting scaffold into the defect, and administering biological lubricant to the defect where biological lubricant is not crosslinked to scaffold

28/26,TI/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
013251354
WPI Acc No: 2000-423237/200036

Compositions to prevent growth of, or to clean, biofilm-embedded microorganisms on surface(s) of medical devices e.g. catheters comprise biofilm-penetrating agent(s) e.g. N-acetylcysteine

28/26,TI/6 (Item 6 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
010128952
WPI Acc No: 1995-030203/199504
Medical implants **made from titanium@ alloy contg. zirconium@ - heat treated in oxygen@ to form oxide surface which is sepd. from the core by metal alloy rich in oxygen**

28/26,TI/7 (Item 7 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
010048970
WPI Acc No: 1994-316681/199439
Localised drug delivery from impregnated polyurethane **coating - on substrate, e.g. stent, for slow release to vascular wall to inhibit e.g. thrombosis**

28/26,TI/10 (Item 10 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
003750370
WPI Acc No: 1983-746574/198334
Prodn. of thigh prosthesis **from standard parts - using cotton casings** impregnated **with** polyether **resin and guide cylinder**

28/7,K/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
015609216 **Image available**
WPI Acc No: 2003-671373/200363
Forming polymeric coating on support surface of e.g. medical device, by applying grafting reagent comprising photoinitiator and monomer solution to surface and activating grafting reagent
Patent Assignee: AMOS R A (AMOS-I); CHAPPA R A (CHAP-I); CHUDZIK S J (CHUD-I); DUQUETTE P H (DUQU-I); EVERSON T P (EVER-I); STUCKE S M (STUC-I); SWAN D G (SWAN-I); SURMODICS INC (SURM-N)
Inventor: AMOS R A; CHAPPA R A; CHUDZIK S J; DUQUETTE P H; EVERSON T P; STUCKE S M; SWAN D G; CHUDZIC S J
Number of Countries: 100 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200355611	A1	20030710	WO 2002US41143	A	20021220	200363	B
US 20030165613	A1	20030904	US 200128518	A	20011221	200365	

Priority Applications (No Type Date): US 200128518 A 20011221
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200355611	A1	E	59	B05D-001/36	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA

ZM ZW
Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SI SK SL SZ TR TZ UG ZM ZW
US 20030165613 A1 A61L-002/00
Abstract (Basic): WO 200355611 A1

NOVELTY - Forming a polymeric coating on a support surface comprises applying a non-polymeric grafting reagent comprising a photoinitiator group and a polymerizable monomer solution to a surface to coat the surface and polymerize the monomers upon activation of the grafting reagent.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a support surface having a polymeric coating prepared as above, and

(2) a device comprising a surface having a polymeric coating prepared as above.

USE - Used for forming a polymeric coating on a porous support surface of medical devices or biomedical devices. The medical device includes grafts, stents, stent/graft combinations, valves, heart assist devices, shunts, and anastomoses devices, catheters, orthopedic devices including **joint implants** , fracture repair devices, and artificial tendons, dental devices comprising dental **implants** and dental fracture repair devices, intraocular lenses, surgical devices including sutures and patches, synthetic **prostheses** and artificial organs including artificial lung, kidney, and heart devices, short-term devices including vascular devices, acute and chronic hemodialysis catheters, cooling/heating catheters, or percutaneous transluminal coronary angioplasty catheters or ophthalmic devices including contact lenses and glaucoma drain shunts. The biomedical device includes gene chips, DNA chip arrays, microarrays, protein ships, fluorescence in situ hybridization slides, cDNA or oligonucleotide arrays, blood sampling and testing components, functionalized microspheres, tubing and membranes, blood bags, membranes, cell culture devices, chromatographic support materials and biosensors.

ADVANTAGE - The method forms a thin, conformable, uniform, uncrosslinked coating having desired properties e.g. lubricity, hemocompatibility, thickness, wettability/hydrophilicity, durability of attachment to the surface, biocompatibility, and reduced bacterial adhesion, onto the preformed, porous, polymeric substrate. The polymeric coating has a thickness of less than 100 nm.

pp; 59 DwgNo 1/01

Derwent Class: A96; B04; D16; D22; P34; P42
International Patent Class (Main): A61L-002/00; B05D-001/36
International Patent Class (Additional): A61L-029/00; A61L-031/00; B05D-001/00; B05D-003/06; C07C-309/42; C08F-002/26
Extension Abstract:
... 4-benzoylbenzyl ether) of pentaerythritol (I) at 1 g/L in 100% isopropyl alcohol (IPA). **Polyurethane** (PU) rods were wiped with an IPA (99% purity) **soaked** lint-free cloth and allowed to dry. The clean PU rods were dipped in (I...

28/7,K/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015032280
WPI Acc No: 2003-092797/200308
Preparation of porous body for medical implants **such as bone replacement**

materials, involves impregnating polymeric foam in slurry of metal particles, drying and pyrolyzing in presence of metal hydride particles

Patent Assignee: ISOTIS NV (ISOT-N)
Inventor: DE GROOT K; LAYROLLE P J F; LI J P
Number of Countries: 076 Number of Patents: 002
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200266693	A1	20020829	WO 2002NL102	A	20020218	200308 B
EP 1362129	A1	20031119	EP 2002700892	A	20020218	200377
			WO 2002NL102	A	20020218	

Priority Applications (No Type Date): EP 2001202062 A 20010530; EP 2001200587 A 20010219
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200266693	A1	E	37	C22B-034/12	

Designated States (National): AE AG AU AZ BA BB CA CH CO DM DZ EC GB GD GH GM ID IL IN IS JP KP KR LC LK LR LT LU LV MA MG MK MN MW MX MZ NO NZ OM PH RO SD SE SG SI TJ TM TN TZ US ZA ZM ZW
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL PT SD SE SL SZ TR TZ UG ZM ZW

EP 1362129	A1	E	C22B-034/12	Based on patent WO 200266693

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): WO 200266693 A1

NOVELTY - A polymeric foam is impregnated in a slurry of metal particles, dried, followed by pyrolysis in the presence of metal hydride particles to obtain the porous body suitable for production of porous metal articles.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) Method for providing a porous metal coating to a metal substrate, which involves impregnating polymeric foam in slurry of metal particles, pasting the impregnated foam on a substrate, drying, followed by pyrolysis in the presence of metal hydride particles and sintering;

(2) An article comprising a porous body and coated substrate;

(3) Medical **implant** comprising a porous metal structure or coating with a porosity of at least 50% and having a mean pore size of at least 400 mm; and

(4) Use of a metal hydride in a sintering and/or pyrolysis process for the manufacture of porous metal articles from metal particles.

The pores are interconnected. The **implant** has a compressive strength of at least 10 Mpa.

USE - For use as medical **implants** such as bone replacement materials or as a scaffold in tissue engineering.

ADVANTAGE - The porous metal article has a good biocompatibility, light weight and provides high strength with good corrosion resistance. The metal hydride particles act as a scavenger and react with the contaminants under pyrolysis or sintering conditions. Hence the metal particles are protected against undesired nitration or oxidation. The fusion of the metal particles during sintering is enhanced by the absence of metal nitrides and oxides, resulting in an increased mechanical stability of the final article. The porous metal coating provides proximal fixation without distal fixation to a **hip implant** which is more beneficial.

pp; 37 DwgNo 0/16

Derwent Class: A96; D22; P32; P34; P53
International Patent Class (Main): C22B-034/12
International Patent Class (Additional): A61F-002/30; A61L-027/56; B22F-003/11; C22B-034/24; C23C-010/30
Extension Abstract:
... Titanium alloy (Ti6A14V) plates of 20/asterisk 20 are used. The **polyurethane** (PU) form was dipped into the metal slurry and dried at 80 degreesC for 30...
...vacuum furnace on top of titanium hydride powder at a preset temperature and pressure. The **impregnated** foam were heated to remove binders. Then pyrolysis was carried out at a pressure of...
...at a pressure of 0.00002 mbars. Then the pressure was normalized. The prepared Ti6A14V **implants** were tested for biocompatibility and soft tissue in growth in rats. 18 male wistar rats (150-200 gms) were used. Each rat received 2 **implants** of two b bars porous titanium **implants** under skin in each side of the spine. After 1-2 and 4 weeks the rats were sacrificed and the titanium **implants** were examined for light microscopy. Histological sections were made in longitudinal **implants** on diamond saw. The porous titanium **implants** were stained with 1% methylene blue and 0.3% basic fuchsin and examined under light...
...blood vessels appeared in the connective tissue thereby vascular growth was observed within the porous **implants** . After two weeks no macrophage cells were found. The fibroblast and fibrocytes were seen on middle part of the **implant** as connective tissue and blood vessels were observed. After 4 weeks thicker encapsulation by fibrous...
...organized connective tissue and blood vessels are observed more on the middle part of the **implant** . Hence better vascularity was achieved by implantation. From the tests the **implant** showed good biocompatibility with soft tissue and a normal fibrous tissue encapsulation. Tissue, blood vessels as well as fibroblast cells were found in the pores of the porous titanium **implants** .

28/7,K/4 (Item 4 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
014543209 **Image available**
WPI Acc No: 2002-363912/200240
Tibia component of fiber-reinforced plastic has directional open pores accumulating lubricating medium
Patent Assignee: TUHH TECHNOLOGIE GMBH (TUHH-N)
Inventor: BIRKEN L; POEPPEL A; SCHNEIDER E; SCHULTE K
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 10051438	A1	20020502	DE 1051438	A	20001017	200240	B

Priority Applications (No Type Date): DE 1051438 A 20001017
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 10051438	A1		5	A61F-002/38	

Abstract (Basic): DE 10051438 A1
NOVELTY - The surface of the tibia component has a three-dimensionally structured fiber arrangement. The component has a directional open porosity. The three-dimensional fiber arrangement is produced by using a woven or knitted fiber layer with subsequent **impregnation** process and hot-pressing. The **lubricating** medium stored in the component's pores is ejected towards the surface

USE - Tibia component of fiber-reinforced plastic

ADVANTAGE - A surface structure is achieved which encourages the formation of a stable lubricating film by two mechanisms.

DESCRIPTION OF DRAWING(S) - The drawing shows an anatomical **knee endoprosthesis** .

pp; 5 DwgNo 1/4

Derwent Class: P32

International Patent Class (Main): A61F-002/38

28/7,K/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

009254297 **Image available**

WPI Acc No: 1992-381714/199246

Load bearing beam implantable in bone - has moulded plastic between longitudinal fibre core and wound fibre sheath

Patent Assignee: HOWMEDICA INC (HOWN); PFIZER HOSPITAL PROD GROUP INC (PFIZ)

Inventor: CRIPPEN T E; DUMBLETON J H; LIN R Y; STARK C F

Number of Countries: 021 Number of Patents: 012

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9218068	A1	19921029	WO 92US2070	A	19920319	199246	B
US 5181930	A	19930126	US 91683391	A	19910410	199307	
ZA 9202584	A	19931124	ZA 922584	A	19920409	199401	
JP 6500945	W	19940203	JP 92509583	A	19920319	199410	
			WO 92US2070	A	19920319		
PT 100354	A	19940429	PT 100354	A	19920408	199420	
EP 661957	A1	19950712	EP 92910081	A	19920319	199532	
			WO 92US2070	A	19920319		
CA 2106380	C	19950711	CA 2106380	A	19920319	199535	
JP 96017787	B2	19960228	JP 92509583	A	19920319	199613	
			WO 92US2070	A	19920319		
EP 661957	B1	19980909	EP 92910081	A	19920319	199840	
			WO 92US2070	A	19920319		
DE 69226965	E	19981015	DE 626965	A	19920319	199847	
			EP 92910081	A	19920319		
			WO 92US2070	A	19920319		
ES 2121012	T3	19981116	EP 92910081	A	19920319	199901	
IE 81078	B	20000223	IE 921137	A	19920409	200019	

Priority Applications (No Type Date): US 91683391 A 19910410

Cited Patents: EP 75378; GB 2216425; US 4902297; WO 8704916; WO 9118562

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9218068	A1	E	24	A61F-002/36	
Designated States (National): CA JP					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LU MC NL SE					
US 5181930	A		13	A61F-002/28	
ZA 9202584	A		22	A61F-000/00	
JP 6500945	W		13	A61F-002/30	Based on patent WO 9218068
EP 661957	A1	E		A61F-002/36	Based on patent WO 9218068
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU NL SE					
JP 96017787	B2		12	A61F-002/30	Based on patent JP 6500945
					Based on patent WO 9218068
EP 661957	B1	E		A61F-002/36	Based on patent WO 9218068
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI LU NL SE					

DE 69226965	E	A61F-002/36	Based on patent EP 661957
			Based on patent WO 9218068
ES 2121012	T3	A61F-002/36	Based on patent EP 661957
IE 81078	B	A61F-002/36	
PT 100354	A	A61L-000/00	
CA 2106380	C	A61F-002/36	

Abstract (Basic): WO 9218068 A

A beam to carry bending and torsional loads comprises a core (12) of longitudinal parallel continuous filament fibres embedded in thermoplastics, a thermoplastic polymer (14) moulded around and encasing the core, and a sheath (16) of filament fibres embedded in thermoplastics wound around the encasement and moulded to it.

The thermoplastic is pref. polyetheretherketone, and the fibres in core and sheath are of carbon impregnated with the thermoplastic. The encasement may consist solely of thermoplastic or may have embedded chopped carbon fibre. The modulus of elasticity is pref more than 10 x 10 power 6 psi for the core, less than 2.0 x 10 power 6 psi for the encasement and 1.5-10 x 10 power 6 psi for the sheath. The sheath fibres are pref. wound at angles w.r.t. the core axis which vary along the length so that beam modulus of elasicity varies along the length.

USE/ADVANTAGE - E.g., for a **hip prosthesis** , is simple and economical to mfr. with properties variable according to application so that the modulus of elasticity approximates that of the adjacent cortical bone.

Dwg.9/18

Abstract (Equivalent): US 5181930 A

A beam for implanting in a bone to support bending and torsional loading forces comprises an elongate core (12) of continuous filament fibres oriented parallel to the beam axis and embedded in thermoplastic polymer, and a thermoplastic polymer encasing (14) the core. A sheath (16) of filament fibres embedded in thermoplastic polymer is wound helically around the casing polymer to form layers and is moulded to it.

The core has a higher modulus of elasticity than the sheath, and than the casing. All the fibres are pref. carbon fibres **impregnated** with thermoplastic resin, and the casing may be solely of resin or may have chopped carbon fibres embedded in it. The thermoplastic polymer is pref. **polyether** -etherketone.

USE/ADVANTAGE - E.g. for use in a **hip joint** replacement, the beam can be stiffer in some areas and more flexible in others so as to avoid stress concn.

Dwg.14/18

Derwent Class: A96; D22; P32; P34
International Patent Class (Main): A61F-000/00; A61F-002/28; A61F-002/30; A61F-002/36; A61L-000/00
International Patent Class (Additional): A61F-002/32; A61F-002/38; A61L-027/00; B29C-067/14; B29C-070/00; B29C-070/10; B29K-105-08

28/7,K/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

008028821
WPI Acc No: 1989-293933/198941

Bone implant - has porous metal component attached to non metallic core

Patent Assignee: BRISTOL-MYERS SQUIBB CO (BRIM); BRISTOL-MYERS CO (BRIM); ZIMMER INC (ZIMV)
Inventor: CROWNINSHIELD R D; DEVANATHAN T N C; PARR J E; PRICE H C; WANG A

K; CROWNINSHI R D; DEVANATHAN T; DEVANATHAN T N
Number of Countries: 010 Number of Patents: 013
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DE 3909545	A	19891005	DE 3909545	A	19890322	198941	B
GB 2216425	A	19891011	GB 896098	A	19890316	198941	
NL 8900692	A	19891016	NL 89692	A	19890321	198944	
FR 2628966	A	19890929				198946	
AU 8931627	A	19890928				198947	
JP 1317435	A	19891222	JP 8966460	A	19890320	199006	
GB 2216425	B	19911016				199142	
BE 1002983	A	19911015	BE 89311	A	19890322	199147	
IT 1228684	B	19910703	IT 8919842	A	19890321	199231	
US 5219363	A	19930615	US 88171626	A	19880322	199325	
			US 89399406	A	19890825		
CA 1332098	C	19940927	CA 594279	A	19890321	199439	
DE 3909545	C2	19981001	DE 3909545	A	19890322	199843	
JP 2823585	B2	19981111	JP 8966460	A	19890320	199850	

Priority Applications (No Type Date): US 88171626 A 19880322; US 89399406 A 19890825
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 3909545	A		5		
US 5219363	A		4	A61F-002/32	Cont of application US 88171626
JP 2823585	B2		5	A61F-002/28	Previous Publ. patent JP 1317435
IT 1228684	B			A61F-000/00	
CA 1332098	C			A61F-002/32	
DE 3909545	C2			A61F-002/28	

Abstract (Basic): DE 3909545 A

A bone **implant** has a non-metal core, and a porous metal component attached to the core.

The core is pref. of **polyether** ether ketone (PEEK), and comprises fibres running lengthwise of the **implant** , fibres forming an entwined casing round the lengthwise fibres, and a polymer skin surrounding both lots of fibres. Both fibres may be of C **impregnated** with PEEK, and the skin is of PEEK. The fibres take up much of the load on the **implant** , and the polymer skin transfers load from the bone to the fibres. The porous metal component includes a cushion of metal fibres, which promotes growth of bone into the cushion and gives firm bonding of the **implant** to the hipbone. The porous component may have embedded in it a pore-free barrier, with the non-metallic core extending up to, but not beyond, this barrier.

ADVANTAGE - The **implant** combines the advantages of metals and composite materials, and the flexibility of the **implant** approximates to that of bone. Bone material grows quickly into the porous metallic surface, and bonds to give long-lasting fixing of the **implant** .

0/5

Abstract (Equivalent): GB 2216425 B

A femoral component for a **hip prosthesis** for implantation within a femoral canal, the femoral component comprising a non-metallic core adapted to extend into the femoral canal, the non-metallic core being flexible to substantially approximate the flexibility of bone surrounding the femoral canal, and a porous metallic component fixedly secured to the non-metallic core for disposition at an outer surface of the non-metallic core so as to be in intimate contact with the wall of the femoral canal to accommodate bone growth into the porous metallic

component when the femoral **hip** component is implanted into the femoral canal.

Abstract (Equivalent): US 5219363 A

Bone **implant** , for partic. **hip** of **joints** , has a femoral component (10) with a core (24) of longitudinal fibres, an intermediate layer (26) of a braided sheath of non-metallic fibres, and a skin (28) enclosing the core, to which porous fibre metal pads (30, 31) are attached.

Core and sheath fibre materials are e.g. of C-Fibre composite while skin may be of PEEK. Metal pads are of short Ti fibres kinked in a sinusoidal pattern, penetrating through the skin and leaving a surface exposed to accommodate bone growth.

ADVANTAGE - Approximately flexibility of bone and compatible with bone.

Dwg.1/5

Derwent Class: A96; D22; P32; P34
International Patent Class (Main): A61F-000/00; A61F-002/28; A61F-002/32
International Patent Class (Additional): A61F-002/36; A61L-027/00

28/7,K/11 (Item 11 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
003465581
WPI Acc No: 1982-13525E/198207
Mfg. joint prosthesis partic. for fingers - by rolling ends of cloth blank transversely and impregnating with polyurethane elastomer
Patent Assignee: HABAL M B (HABA-I)
Inventor: LEAKE L
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4313232	A	19820202				198207 B

Priority Applications (No Type Date): US 80196155 A 19801010; US 792545 A 19790110
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 4313232	A		5		

Abstract (Basic): US 4313232 A

A **prosthesis** is prepd. by trimming the ends of a biocompatible cloth mesh to leave a wider central segment, **impregnating** with reinforcing material, rolling the ends axially about the longitudinal axis, and applying additional material to the ends to eliminate flexing of the ends.

The material is pref. a **polyether** urethane elastomer and the ends can be attached to bone ends while the segment can flex along a single plane. The mesh is e.g. of Dacron or nylon mesh and there are pores through the blank no larger than 0.5 micron to facilitate ingrowth

Derwent Class: A32; A96; D22; P32
International Patent Class (Additional): A61F-001/03

33/7,K/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2004 Thomson Derwent. All rts. reserv.
013686610
WPI Acc No: 2001-170834/200118
Method of protecting an article which is adapted to be inserted into and

removed for re-use from a human or animal body, by applying a coating of a polycarbonate-based polyurethane material

Patent Assignee: STERILOX MEDICAL EURO LTD (STER-N)
Inventor: CROSS D; MUIR A V; MUIR A V G
Number of Countries: 026 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 1066839	A1	20010110	EP 2000305717	A	20000706	200118	B
CA 2313576	A1	20010108	CA 2313576	A	20000707	200118	
GB 2353954	A	20010314	GB 200016675	A	20000706	200121	
GB 2353954	B	20011219	GB 200016675	A	20000706	200203	

Priority Applications (No Type Date): GB 9915932 A 19990708
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1066839	A1	E	11	A61L-029/08	
	Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI				
CA 2313576	A1	E		A61L-031/10	
GB 2353954	A			A61L-029/00	
GB 2353954	B			A61L-029/00	

Abstract (Basic): EP 1066839 A1

NOVELTY - A method of protecting an article comprises applying a coating of a polycarbonate-based polyurethane material to it. The article is protected against an oxidizing sterilizing or disinfecting solution.

DETAILED DESCRIPTION - A method of protecting an article comprises applying a coating of a polycarbonate-based polyurethane material to it.

An INDEPENDENT CLAIM is also included for the polycarbonate-based polyurethane material.

USE - The article is adapted to be inserted into and removed for re-use from a human or animal body (claimed). The article is part of an endoscope (claimed).

ADVANTAGE - The article is protected against an oxidizing sterilizing or disinfecting solution (claimed). The coating is oxidation resistant (claimed), flexible, biocompatible, easy to apply and has good adhesion to the substrate.

pp; 11 DwgNo 0/0

Derwent Class: A23; A25; A96; P31; P34
International Patent Class (Main): A61L-029/00; A61L-029/08; A61L-031/10
International Patent Class (Additional): A61B-001/005
Technology Focus:

... especially comprising a fluorocarbon. The polycarbonate-based polyurethane is applied as a solution, preferably by **dipping** or spraying.

Extension Abstract:

...a solvent to increase adhesion. The tube was twice spray coated using a formulation comprising **Chronoflex** AR/LT (RTM: polycarbonate-based polyurethane preparation) in MEK M6019/dimethylacetamide/toluene and...

33/7,K/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX

015960964
WPI Acc No: 2004-118805/200412

Compositions comprising triboelectrically chargeable particles, useful for synthesis of e.g. nucleic acid arrays

Patent Assignee: HUANG T (HUAN-I)
Inventor: HUANG T
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020137719	A1	20020926	US 2001279004	P	20010326	200412 B
			US 2001322362	P	20010914	
			US 2002108212	A	20020326	

Priority Applications (No Type Date): US 2002108212 A 20020326; US 2001279004 P 20010326; US 2001322362 P 20010914
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020137719	A1		38	A61K-048/00	Provisional application US 2001279004 Provisional application US 2001322362

Abstract (Basic): US 20020137719 A1

NOVELTY - Compositions comprising triboelectrically chargeable particles of less than 50 microns diameter and carrier particles, are new.

DETAILED DESCRIPTION - Compositions comprising:

(a) particles of less than 50 microns diameter, comprising a nucleotide that includes a 5' and 3' functional group, where 1 of the functional groups is a protecting group and the other is a reactive group;

(b) triboelectrically chargeable particles of less than 50 microns diameter comprising a nucleotide; carrier particles; and optionally a surface charge control agent; or

(c) a dielectric liquid component and particles which are insoluble in the liquid and are composed of a protected nucleotide subunit.

INDEPENDENT CLAIMS are also included for methods of using the particles to selectively pattern a substrate with the composition, by transfer from a selectively charged surface.

USE - The compositions are useful in chemical synthesis, e.g. to synthesize nucleic acid arrays.

pp; 38 DwgNo 0/19

Derwent Class: A96; B04; D16
International Patent Class (Main): A61K-048/00
International Patent Class (Additional): C07H-021/04
Technology Focus:
... Agent: The surface control agent is e.g. polystyrene, polyformaldehyde, epoxide resin, polytetrafluoroethylene, or preferably **carbosil** , fumed silica, a fluorinated polymer or polystyrene...
Extension Abstract:
... different volumes (01, 0.25, 0.5 and 1 microlitre). After drying the slide was **dipped** into a solution of 0.5 M tetrazole in dry acetonitrile, washed, dried and placed...

33/7,K/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX

015627226
WPI Acc No: 2003-689397/200365
Preparation of dip coated **covered stents used in body lumens e.g. coronary artery involves mounting cylindrical stent rings on mandrel, depositing mandrel assembly in polymer solution and removing stent from mandrel**
Patent Assignee: ADVANCED CARDIOVASCULAR SYSTEM (ADCA-N)
Inventor: BHAGAT R; HONG J; HOSSAINY S; PRABHU S; RAO K T V; SHAH A;

SRIDHARAN S
Number of Countries: 101 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200357075	A2	20030717	WO 2002US37531	A	20021121	200365 B

Priority Applications (No Type Date): US 200133380 A 20011227
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200357075	A2	E	25	A61F-002/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SC SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM ZW
Designated States (Regional): AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

Abstract (Basic): WO 200357075 A2

NOVELTY - Preparation of a **dip coated** covered stent involves mounting cylindrical stent rings spaced at an equal distance from each other on a mandrel to form a mandrel assembly, depositing the mandrel assembly in a polymer solution, and removing the obtained stent from the mandrel.

DETAILED DESCRIPTION - Preparation of a **dip coated** covered stent involves mounting cylindrical stent rings spaced at an equal distance from each other on a mandrel to form a mandrel assembly, depositing the mandrel assembly in a polymer solution, and removing the resulting stent from the mandrel. The mandrel is coated with a biocompatible polymer to form a base coat layer. The stent rings are expandable in a radial direction and have delivery and implanted diameters aligned on a common longitudinal axis.

INDEPENDENT CLAIMS are also included for:

(1) preparing a hybrid stent having alternating rings and links formed of a biocompatible polymer and optionally a metallic material, which involves positioning cylindrical stent rings into the stent patterned grooves of a mandrel assembly having connector channels encased within outer mold covers, injecting the polymer into the assembly, removing the obtained hybrid stent from the assembly, and optionally attaching a peak of the polymer ring to the peak of the adjacent metallic ring by welding;

(2) preparing a laminated, linkless polymer stent which involves mounting a polymer tube on a mandrel, inserting flexible cylindrical rings on the polymer tube, placing another polymer tube around the first polymer tube having rings inserted on it, placing a shrinking tube over the second polymer tube, applying simultaneous heat and pressure to the shrink tubing or to the inner surface of the first polymer tube and an outer surface of the second polymer tube and removing the shrink tubing and the mandrel from the resulting stent, and

(3) an intravascular stent which comprises flexible cylindrical rings formed of a metallic material alternating with the cylindrical rings and covered with a biocompatible polymer material, flexible links formed from the polymer and having a column strength to axially separate the cylindrical rings, and at least one link attached between the adjacent rings.

USE - Used for the preparation of **dip - coated** covered, hybrid, or laminated, linkless polymer stents useful in body lumens (claimed)

e.g. coronary artery.

ADVANTAGE - The stent exhibits a high degree of flexibility and can be advanced through tortuous passageways, can be readily expanded, and is strong, stable and has the mechanical strength to hold open the body lumen into which it is expanded. The stent also has high radial strength.

pp; 25 DwgNo 0/18

Derwent Class: A96; B04; B05; D22; P32

International Patent Class (Main): A61F-002/00

Technology Focus:

... polyethylene, polycaprolactone, poly-L-lactide, polylactide, polyglycolide, poly(lactic-co-glycolic) acid, polyanhydrides, polyphothazenes, polyorthoesters, **Elasteon** , chitosan alginate, collagen or elastin...

...between the cylindrical rings increases. The mandrel assembly is deposited in the polymer solution by **dip coating** and the process is repeated until the polymer covering the rings attains a thickness of...

...mandrel assembly before mounting the rings on the polymer coated mandrel. Each end of the **dip coated** covered stent is trimmed and a perforated pattern is cut into the stent. The links...

```
File 348:EUROPEAN PATENTS 1978-2004/Mar W01
File 349:PCT FULLTEXT 1979-2002/UB=20040311,UT=20040304
Set     Items   Description
S1      48453   PROSTHES?S OR ENDOPROSTHES?S OR PROSTHETIC? OR ENDOPROSTHE-
             TIC? OR IMPLANT? ?
S2     217608   JOINT? ? OR ELBOW? ? OR HIP OR HIPS OR KNEE OR KNEES OR SH-
             OULDER? ? OR DIARTHROSIS OR ARTHRODIA
S3        777   SINTER?(2W)COAT???
S4     303629   BEAD OR BEADS OR PARTICLE? ?
S5       2279   NONSPHERICAL? OR NON()SPHERICAL?
S6     292663   LUBRICANT? ? OR LUBRICIOUS OR LUBRICATING OR OIL OR OILS
S7     146874   CAPSUL? OR ENCAPSUL? OR POD OR PODS OR HULL OR HULLS
S8     686696   OPENING? ? OR APERTURE? ? OR OUTLET? ? OR SLOT OR SLOTS OR
             HOLE OR HOLES
S9     260399   IMPREGNAT? OR IMBUE??? OR IMBUING OR INFUSE? ? OR INFUSING
             OR INFUSION? ? OR SUFFUS??? OR SUFFUSIONS OR SATURAT??? OR SO-
             AK???
S10      1046   SURFACE()HARDEN?
S11     51656   LUBRICITY OR LUBRICIOUS? OR LUBRICAT?
S12    136936   POLYURETHANE? OR POLYCARBONATE? OR POLYETHER? ?
S13     47267   (DIP OR BEAD)()COAT??? OR DIPS OR DIPPED OR DIPPING
S14       428   CHRONOTHANE OR CHRONOFLEX OR ELAST()EON OR ELASTEON OR BIO-
             NATE OR CARBOSIL OR TECHOTHANE OR TECOTHANE OR TECOFLEX OR CA-
             RBOTHANE
S15      4349   S1(3N)S2
S16    100502   IC=(A61B OR A61F OR A61L)
S17         5   S3(S)S4(S)S5
S18         4   S15 AND S17 [duplicates]
S19    627746   SHAPE? ? OR SHAPING
S20        26   S3(S)S4(S)S19
S21         1   (S15 AND S20) NOT S18
S22         5   S17 NOT S21
S23         1   S17 NOT S18
S24         3   S6(S)S7(S)S8 AND S15
S25        11   (S6(S)S7 OR S6(S)S8)(S)S15
S26         8   S16 AND S25
S27         3   S25 NOT (S26 OR S17 OR S18 OR S21)
S28      8676   S9(S)S10:S12
S29      8671   S9(3N)S28
S30         2   S15(S)S28
S31         0   S30 NOT (S26 OR S21 OR S17 OR S18 OR S25)
S32       757   S28 AND S16
S33        51   S28(S)S1 AND S16
S34         8   S2(S)S1(S)S28
S35         6   S34 NOT (S26 OR S21 OR S17 OR S18 OR S25)
S36        38   S13(S)S14
S37         1   S15(S)S36
S38         0   S37 NOT (S17 OR S18 OR S21 OR S25 OR S26)
S39        33   S36 AND S16
S40         2   S1:S2(S)S36
S41         1   S40 NOT (S17 OR S18 OR S21 OR S25 OR S26)
S42         3   S36 AND (S1/TI OR S2/TI)
S43         2   S42 NOT (S17 OR S18 OR S21 OR S25 OR S26 OR S40)
S44        29   S39 NOT (S17 OR S18 OR S21 OR S25 OR S26 OR S40 OR S42)

 21/3,AB,K/1     (Item 1 from file: 349)
```

DIALOG(R)File 349:PCT FULLTEXT

00220832
METAL-BACKED PATELLAR PROSTHESIS
PROTHESE DE ROTULE A SUPPORT METALLIQUE
Patent Applicant/Assignee:
MIKHAIL W E Michael,
Inventor(s):
MIKHAIL W E Michael,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9218069 A1 19921029
Application: WO 92US3235 19920420 (PCT/WO US9203235)
Priority Application: US 91500 19910423
Designated States: AT AU BE BR CA CH DE DK ES FR GB GR IT JP KR LU MC NL SE
Publication Language: English
Fulltext Word Count: 6482
English Abstract
A two-piece **patellar prosthesis** (10) for use in combination with a prepared **patella** (9) has a plastic component (11') with a dome (21'), a body portion (23') and a central post (25') and a second metal component (12') engaged to the surface (24') of the first component (11') opposing said dome (21'), said second component (12') having a porous surface (31') to promote bone ingrowth and a plurality of spikes (32') for preventing rotation.
Fulltext Availability: Detailed Description
Detailed Description
... also be used to retain such second component to the lower surface of the conical- **shaped** body portion 24. As may be seen particularly in Figs. 1 and 2. the second...
...of the body portion defined by the juncture of the lower surface of the conical **shaped** body portion 24 with the surface of the short cylindrical body section 23 but rather...
...spaced therefrom to leave an annular ring 29 of the lower surface of the conical- **shaped** body portion 24 exposed to contact the outer surface of the cavity of the prepared...
...providing the annular ring 29 of exposed plastic of the lower surface of the conical- **shaped** body portion 24 is to keep the second metallic component 12 spaced from the edge...
...total knee system,
The portion of the second metallic component facing away from the conical- **shaped** body portion 24 has affixed thereto by **sintering** or other means well-known in the art of **joint prostheses** manufacture a series of **beads** 31 forming a porous surface intended to receive bone ingrowth for retaining the patellar prosthesis...
...bone ingrowth, U,S, Patent No. 4,164,794 discloses a prosthetic device having a **sintered** porous **coating** of selected bioengineering thermoplastics which could be used for such porous surface, The 1 5 second metallic component also has a series of spikes 32 extending between the **beads** 31. There may be any reasonable number of spikes 32 but preferably, there will be...

23/6/1 (Item 1 from file: 348)
00290187
Ceramic coated metal subtrates for electronic applications.

24/6/2 (Item 2 from file: 349)
00874457 **Image available**
A METHOD OF PRODUCING A CERAMIC BODY BY COALESCENCE AND THE CERAMIC BODY PRODUCED

24/6/3 (Item 3 from file: 349)
00874123 **Image available**
A METHOD OF PRODUCING A COMPOSITE BODY BY COALESCENCE AND THE COMPOSITE BODY PRODUCED

26/3,AB,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00280423
BONE PROSTHESIS.
KNOCHENIMPLANTAT.
PROTHESE OSSEUSE.
PATENT ASSIGNEE:
SUMITOMO CEMENT CO. LTD., (382910), 1, Kanda Mitoshiro-cho, Chiyoda-ku Tokyo 101, (JP), (applicant designated states: CH;DE;FR;GB;LI)
INVENTOR:
SHINJOU, Kiyoshi, 76, Aza Kamisuge Hazama Oaza Inokoishi Idaka-cho, Meito-ku Nagoya-shi Aichi 465, (JP)
TAKAGI, Shigehide, 3-7-7, Tsudanuma Narashino-shi, Chiba 275, (JP)
LEGAL REPRESENTATIVE:
Paget, Hugh Charles Edward et al (34621), MEWBURN ELLIS & CO. 2/3 Cursitor Street, London EC4A 1BQ, (GB)
PATENT (CC, No, Kind, Date): EP 269745 A1 880608 (Basic)
EP 269745 A1 890802
EP 269745 B1 930818
WO 8706843 871119
APPLICATION (CC, No, Date): EP 87903401 870515; WO 87JP304 870515
PRIORITY (CC, No, Date): JP 86109466 860515
DESIGNATED STATES: CH; DE; FR; GB; LI
INTERNATIONAL PATENT CLASS: **A61L-027/00**
LANGUAGE (Publication,Procedural,Application): English; English; Japanese
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	EPBBF1	589
CLAIMS B	(German)	EPBBF1	468
CLAIMS B	(French)	EPBBF1	677
SPEC B	(English)	EPBBF1	5109
Total word count - document A			0
Total word count - document B			6843
Total word count - documents A + B			6843

...SPECIFICATION bone portion is broken, the scattering of broken pieces can be prevented. Still further, the **prosthesis** (**joint capsule**) of the present invention exerts functions similar to the functions of the joint **capsule** , that is, reduction of the frictional force by secretion of a functional **lubricant** fluid and catabolism of wastes in the joint cavity...

26/3,AB,K/2 (Item 2 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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00154231

BALL AND SOCKET BEARING FOR ARTIFICIAL JOINT
KUGELPFANNENLAGER FUR KUNSTLICHES GELENK
COUSSINET A ROTULE POUR ARTICULATION ARTIFICIELLE

PATENT ASSIGNEE:
JOINT MEDICAL PRODUCTS CORPORATION (a Delaware corporation), (364290), 860 Canal Street, Stamford, CT 06902, (US), (Proprietor designated states: all)
INVENTOR:
NOILES, Douglas, G., 114 Elm Place, New Canaan, CT 06840, (US)
LEGAL REPRESENTATIVE:
Senior, Alan Murray et al (35712), J.A. KEMP & CO., 14 South Square, Gray's Inn, London WC1R 5LX, (GB)
PATENT (CC, No, Kind, Date): EP 137040 A1 850417 (Basic)
EP 137040 A1 870107
EP 137040 B1 910612
EP 137040 B2 000223
WO 8403432 840913
APPLICATION (CC, No, Date): EP 84901489 840305; WO 84US364 840305
PRIORITY (CC, No, Date): US 473431 830308; US 553520 831121
DESIGNATED STATES: AT; BE; CH; DE; FR; GB; LI; LU; NL; SE
INTERNATIONAL PATENT CLASS: **A61F-002/30** ; **A61F-005/04**
NOTE: No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200008	885
CLAIMS B	(German)	200008	846
CLAIMS B	(French)	200008	940
SPEC B	(English)	200008	8298
Total word count - document A			0
Total word count - document B			10969
Total word count - documents A + B			10969

...SPECIFICATION the prosthesis is reduced and thus because of the possibility of leverage type dislocations, similar demands are placed on the surgeon to establish the geometry of the reconstruction within rather narrow limits...
...angularly offset section, a sleeve and a socket bearing having an offset spherical seat and **encapsulates** a supply of **lubricant** . The angularly offset section of the connecting member and the offset of the seat of...

26/3,AB,K/3 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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01005441
HIP PROSTHESIS AND DESIGNING METHOD THEREOF
PROTHESE DE HANCHE ET METHODE DE CONCEPTION DE CETTE DERNIERE
Patent Applicant/Assignee:
UNIVERSITA' DEGLI STUDI DI ROMA LA SAPIENZA, P.le Aldo Moro, 5, I-00185 Roma, IT, IT (Residence), IT (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
BORRUTO Adelina Teresa Maria, Universita Degli Studi Di Roma "La Sapienza", Dipartimento di Ingegneria Chimica, dei Materiali,, delle, Via Eudossiana, 18, I-00184 Roma, IT, IT (Residence), IT (Nationality), (Designated only for: US)
MARRELLI Luigi, Universita Degli Studi Di Roma "La Sapienza",

Dipartimento di Ingegneria Chimica, dei Materiali,, delle, Via Eudossiana, 18, I-00184 Roma, IT, IT (Residence), IT (Nationality), (Designated only for: US)
Legal Representative:
LEONE Mario (et al) (agent), Societa Italiana Brevetti S.p.A., Piazza di Pietra, 39, I-00186 Roma, IT,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200335129 A1 20030501 (WO 0335129)
Application: WO 2002IT86 20020214 (PCT/WO IT0200086)
Priority Application: IT 2001RM628 20011023
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: Italian
Fulltext Word Count: 6651
English Abstract
Hip prosthesis, comprising a first prosthetic body reproducing an acetabular cup and a second prosthetic body reproducing a femoral head and apt to work coupled to the first prosthetic body, wherein the prosthetic bodies have low debris production and different wettability (theta) (Figure 20A).
Main International Patent Class: **A61L-027/50**
International Patent Class: **A61F-002/32** ...
... **A61F-002/34** ...
... **A61F-002/36**
Fulltext Availability: Detailed Description
Detailed Description
... second prosthetic body reproducing a femoral head and apt to be coupled to said first **prosthetic** body.
The **hip** **joint** has been prosthesized for more than forty years by prosthetic bodies apt to reproduce the coupling between the femoral head and the acetabular cup. These bodies work in an environment **encapsulated** by the so-called sinovial membrane, which contains a viscous liquid **lubricant** consisting of plasma, water, salts and hyaluronic acid, called sinovial liquid, apt to ease the...

26/3,AB,K/5 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00735530
BONE PROSTHESIS AND METHOD OF IMPLANTATION
PROTHESE OSSEUSE ET SON PROCEDE D'IMPLANTATION
Patent Applicant/Inventor:
GRIMES James B, 1921 18th Street, Bakersfield, CA 93301, US, US (Residence), US (Nationality)
Legal Representative:
JAMES Kurt F, Senniger, Powers, Leavitt & Roedel, One Metropolitan Square, 16th floor, St. Louis, MO 63102, US
Patent and Priority Information (Country, Number, Date):
Patent: WO 200048535 A1 20000824 (WO 0048535)

Application: WO 99US3709 19990219 (PCT/WO US9903709)
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW SD SZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 20673
English Abstract
A bone **prosthesis** (501) for implantation at a **joint** includes a stem (513) having a tip (520) generally at one end thereof. The stem is sized, and shaped for reception in a bone at the joint such that the tip of the stem is exposed to locations outside of the bone. The stem has a passageway (514) extending from a first location on the bone prosthesis to a second location on the bone prosthesis.
Main International Patent Class: **A61F-002/32**
Fulltext Availability: Detailed Description
Detailed Description
... produced by the joint lining, or synovium, for lubricating the joint. After implantation of a **prosthesis**, pressure in the **joint** created by walking or other activity may force the synovial fluid into the implant-bone...
...portion 415 of the stem 413 is forced by the fluid pressure to enter an **opening** 430 in the periphery of the upper portion, flow through a secondary channel 435 and a primary channel 414 of the stem and exit at an **aperture** 418 in the stem tip external to the bone. The vastus lateralis VL (muscle..

26/3,AB,K/6 (Item 4 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00553251
SAFE AND EFFECTIVE BIOFILM INHIBITORY COMPOUNDS AND HEALTH-RELATED USES THEREOF
COMPOSES SURS ET EFFICACES INHIBITEURS DE FILMS BIOLOGIQUES, ET UTILISATIONS DANS DES DOMAINES RELIES A LA SANTE
Patent Applicant/Assignee:
PHYCOGEN INC,
Inventor(s):
ALBERTE Randall S,
ZIMMERMAN Richard C,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200016624 A1 20000330 (WO 0016624)
Application: WO 99US22235 19990923 (PCT/WO US9922235)
Priority Application: US 98159814 19980923
Designated States: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 23467
English Abstract

The formation of biofilms on surfaces in health-related environments can be prevented by the use of a compound represented by general structure (1), wherein X represents -OH, -O(aryl), -O(acyl), -O(sulfonyl), -CN, F, Cl, or Br; Y represents O, S, Se, or NR; Z represents optionally substituted alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, aralkyl, heteroaralkyl, or -(CH2)m-R80; R represents independently for each occurrence hydrogen, alkyl, heteroalkyl, aryl, heteroaryl, aralkyl, heteroalkyl, or -(CH2)m-R80; R80 represents independently for each occurrence aryl, cycloalkyl, cycloalkenyl, heterocyclyl, or polycyclyl; and m is an integer in the range 0 to 8 inclusive, and by preventing the formation of biofilms, the compounds formulated according to the present invention can be used in the fabrication of grafts, implants, medical devices in order to prevent infection thereof. The compounds formulated according to the present invention display an additional anticoagulant property, permitting their use in settings where decrease in blood coagulability is desirable.

International Patent Class: **A61L-027/54**
Fulltext Availability: Claims
Claim

... shunts (including ventricular or arterio-venous shunts); prostheses (including breast implants, penile prostheses, vascular grafting **prostheses** , heart valves, artificial **joints** , artificial larynxes, otological **implants**), vascular catheter ports. wound drain tubes, hydrocephalus shunts, pacemakers and implantable defibrillators, and the like...26)

compound of the invention. Microencapsulation may also be used for providing improved stability. The **encapsu**lated product can take the forin of, for example, spheres, aggregates of core material embedded in...

26/3,AB,K/7 (Item 5 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
(c) 2004 WIPO/Univentio. All rts. reserv.
00537951
MEMBRANE FOR USE WITH PROSTHETIC DEVICES
MEMBRANE A UTILISER AVEC DES PROTHESES
Patent Applicant/Assignee:
BUTTERMANN Glenn R,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200001324 A1 20000113 (WO 0001324)
Application: WO 99US4278 19990326 (PCT/WO US9904278)
Priority Application: US 98110890 19980707
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZA ZW GH GM KE LS MW SD SL SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 6465
English Abstract

A prosthetic joint apparatus (10, 50, 78) for replacement of a damaged natural joint in a patient's body includes a first prosthetic component (12, 52, 80) for securing to a first bone and a second prosthetic component (14, 54, 82) for securing to a second bone. The first and second prosthetic components have engaging, articulating surfaces to permit relative movement between the first bone and the second bone. A

first membrane (28, 62, 88) is attached to the first prosthetic component between an intra-articular section (A) and an extra-articular section (B) of that first prosthetic component. The second membrane (30, 64, 94) is attached to the second prosthetic component between an intra-articular section (A) and an extra-articular section (B) of that second prosthetic component. The first and second membranes are impermeable to wear debris and prevent migration of any wear debris from the intra-articular sections (A) to the extra-articular sections (B) of the prosthesis (10, 50, 78).

Main International Patent Class: **A61F-002/30**
Fulltext Availability: Detailed Description
Detailed Description
... to Martinie discloses a membrane that fully encapsulates and seals the articulating components of a **hip prosthesis** to seal in **lubricant** and wear debris and seal out corrosive body fluids.

In addition to those designed to...
...encapsulating membranes have been developed for otherpurposes. U.S. Patent No. 3F8641758 discloses an encapsulating **hip joint** bearing **prosthesis** that has a **lubricating** fluid cavity to provide frictionless **joint** movement. This **prosthesis** prevents residue from body fluids from penetrating between the joint surfaces, where the residue could...

26/3,AB,K/8 (Item 6 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00483761
DEBRIS ISOLATING PROSTHETIC HIP JOINT
PROTHESE DE L'ARTICULATION DE LA HANCHE PERMETTANT D'ISOLER DES DEBRIS
Patent Applicant/Assignee:
KWONG Louis M,
Inventor(s):
KWONG Louis M,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9915113 A1 19990401
Application: WO 97US17005 19970922 (PCT/WO US9717005)
Priority Application: WO 97US17005 19970922
Designated States: AL AM AT AT AU AZ BA BB BG BR BY CA CH CN CU CZ CZ DE DE DK DK EE EE ES FI FI GB GE GH HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SK SL TJ TM TR TT UA UG UZ VN YU ZW GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 4050
English Abstract
This invention is a prosthetic hip assembly comprising an acetabular component (12) having a bearing surface (22) which forms a first articulating surface, and a femoral component (54) including a spherically shaped head (56) defining a second articulating surface. The acetabular component (12) includes a first surface treatment (24) for promoting the attachment of fibrous tissue to the acetabular component (12). The femoral component (54) includes a second surface treatment (68) for promoting the attachment of fibrous tissue to the femoral component (54). The first and second surface treatment (24, 68) cause fibrous tissue to attach to the femoral component (54), and the acetabular component (12) to form a capsule between the components when the

components are implanted in a patient. Any wear debris created by the first and second articulating surfaces rubbing against one another is confined within the capsule to substantially prevent the migration of the wear debris into interfaces between the components, and their associated bones. The capsule further operates to substantially prevent metal and cement debris remaining at the interfaces between the components, and their associated bones from migrating into the fibrous tissue enclosure, and toward the articulating surfaces of the components.
Main International Patent Class: **A61F-002/36**
Fulltext Availability: Detailed Description
Detailed Description
... methods for isolating the wear debris. In U.S. Patent No 3,683,421 entitled **PROSTHETIC JOINT** ASSEMBLY, issued to Martinie on August 15, 1972, an **encapsulated prosthetic hip joint** assembly is described. In the Martinie patent, the bearing is mechanically sealed. In particular, a flexible cover is employed to surround the hip joint assembly to retain a **lubricating** fluid around the joint to lubricate it and segregate any wear debris from the body...

27/6/2 (Item 2 from file: 349)
00434996 **Image available**
COMPOSITIONS AND METHODS FOR STIMULATING BONE GROWTH

27/6/3 (Item 3 from file: 349)
00254966
STRESS ABSORBING SEMIPERMANENT DENTAL IMPLANT SYSTEM

35/6/4 (Item 4 from file: 349)
00536785
ALKYLAMINES AND THEIR PRECURSORS AS SPECIFIC MODULATORS OF HUMAN GAMMA-DELTA T CELL FUNCTION

35/6/5 (Item 5 from file: 349)
00521122 **Image available**
WEAR RESISTANT SURFACE-GRADIENT CROSS-LINKED POLYETHYLENE

35/6/6 (Item 6 from file: 349)
00410626
CROSSLINKING OF POLYETHYLENE FOR LOW WEAR USING RADIATION AND THERMAL TREATMENTS

35/3,AB,K/1 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00977771
METHOD FOR TREATING MEDICAL DEVICES USING GLYCEROL AND AN ANTIMICROBIAL AGENT
PROCEDE DE TRAITEMENT DE DISPOSITIFS MEDICAUX A L'AIDE DE GLYCEROL ET D'UN AGENT ANTIMICROBIEN
Patent Applicant/Assignee:
BAYLOR COLLEGE OF MEDICINE, Associate General Counsel, One Baylor Plaza, Suite 106A, Houston, TX 77030, US, US (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
MANSOURI Mohammad David, 2002 Holcombe Blvd., Houston, TX 77030, US, US (Residence), US (Nationality), (Designated only for: US)

DAROUICHE Rabih O, 4807 Pin Oak Park Drive, Apartment 143, Houston, TX 77081, US, US (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
MCCOY Michael S (et al) (agent), Fulbright & Jaworski L.L.P., 1301 McKinney, Suite 5100, Houston, TX 77010-3095, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200306179 A1 20030123 (WO 0306179)
Application: WO 2002US21719 20020710 (PCT/WO US0221719)
Priority Application: US 2001902127 20010710
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 7689
English Abstract

A non-metallic medical device treated with a antimicrobial agents is provided. Different combinations of antimicrobial agents can be used for different types of non-metallic medical devices depending on the types of infections related to each device. The combination of different antimicrobial substances has a synergistic effect against certain bacteria and fungi. An antimicrobial agent can be used to treat a non-metallic medical device by mixing the antimicrobial agent with an acid solution and glycerol and exposing the non-metallic medical device to the resulting mixture such that an enough of the antimicrobial agents binds to a portion of the non-metallic medical device to inhibit the growth of bacterial and fungal organisms.

Fulltext Availability: Claims
Claim

... method of the present invention include, but are not limited to, rubber, plastic, nylon, silicone, **polyurethane** , polyethylene, polyvinyl chloride, Gortex (polytetrafluoroethylene tetraphthalate), Dacron (polyethylene tetraphthalate), Teflon (polytetrafluoroethylene), latex, elastomers, polymers, and...arty Swan-Ganz catheters, urinary catheters, long terni urinary devices, tissue bonding urinary devices, penile **prostheses** , vascular grafts, extravascular grafts, urinary stints, vascular catheter ports, wound drain tubes, hydrocephalus shunts, peritoneal...

...systems, artificial urinary sphincters, vascular dialators, extravascular dialators, vascular stints, extravascular stints, ventricular catheters, small **joint** replacements, temporary 'oint replacements, urinary dilators, heart valves, J orthopedic **implants** , heart assist devices, stents, penial **implants** , mammary **implants** , dental devices, bioniaterials (small intestinal submucosa, skin, other human and non-human tissue, and bioprosthetic... fluids' leaks, diseased blood vessels, cardiovascular defects, and degenerative or traumatic musculoskeletal problems (affecting bones, **joints** , cartilage, tendons, ligaments, and muscles). [00411 In addition to treating non-metallic medical devices, the...Treating Non-Metallic Medical Devices

[0044] The treatment solution consists of a solvent of a **saturated**

short chain monocarboxylic acid such as fornric acid, acetic acid, and propionic acid with a...

35/3,AB,K/3 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

00578258
ARTICLE AND METHOD FOR COUPLING MUSCLE TO A PROSTHETIC DEVICE
ARTICLE ET PROCEDE PERMETTANT DE COUPLER UN MUSCLE AVEC UN DISPOSITIF PROTHETIQUE
Patent Applicant/Assignee:
THE UNIVERSITY OF CINCINNATI,
MELVIN David B,
Inventor(s):
MELVIN David B,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200041631 A1 20000720 (WO 0041631)
Application: WO 2000US773 20000112 (PCT/WO US0000773)
Priority Application: US 99115727 19990112
Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZW GH GM KE LS MW SD SL SZ TZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
Publication Language: English
Fulltext Word Count: 12423
English Abstract
This invention is a prosthetic linkage (110) for use with skeletal muscle (M). The linkage (110) includes a plurality of longitudinally extending filaments (14) forming a strand (12). The strand (12) has a first portion (20) that includes a core portion (22) wherein the filaments (14) extend generally parallel to each other, and an exterior portion (24) wherein the filaments (14) are braided along its longitudinal axis around the core portion (22). The strand (12) also includes a second portion (30) wherein the filaments (14) are generally randomly oriented, and sized for integration into skeletal muscle (M).
Fulltext Availability: Claims
Claim
... in conjunction with the accompanied drawings in which: Fig. I is perspective view of the **prosthetic** coupling made in accordance with the present invention being attached to the distal end of skeletal muscle; Fig. 2 is longitudinal sectional view of a **prosthetic** coupling made in accordance with the present invention;
5 Fig. 3 is cross sectional view of the **prosthetic** coupling taken along line 3-3 in Fig. 2;
Fig. 4 is a partial enlarged perspective view of alternative embodiment of the **prosthetic** coupling make in accordance with the present invention;
Fig. 5 is a perspective view of...
...wherein like numerals indicate the same elements throughout the views, the present invention includes a **prosthetic** coupling generally identified as IO for utilizing skeletal muscle, preferably left generally in situ, to power or actuate a circulatory assist device, such as an artificial heart. **Prosthetic** coupling 10 can include a strand 12 or suture, which can have thousands of fine...
...indefinitely transmitting the contractile force 01'111LISC le M. and

preferably skeletal muscle, to a **prosthetic** device (see, e.g., PD in Fig. 2). The filaments 14 used with the present...as will be detailed below, alld also can permit the transfer of increased power via **prosthetic** coupling I 0. To increase the surface area of the strand 12, the filaments 14...

...such very high molecular weight polypropylenes), polytetrafluroethylene (PTFE), polyester, and the like.

1 4 The **prosthetic** coupling 10 of the present invention has at least two portions. a first or **prosthetic** attachment portion 20, and a second or muscle coupling portion 30. The filaments 14 are...

...throughout both portions 20 and 3 0, respectively, and are generally organized differently in the **prosthetic** attachment portion 20 from the muscle coupling portion 30 for use in the present invention. Turning now to Fig. 3, the filaments 14 are preferably configured and organized in **prosthetic** attachment portion 20 so as to assist in attaching the **prosthetic** coupling I 0 to a **prosthetic** device PD, such as a circulatory assist device. The organization and configuration of the **prosthetic** attachment portion 20 should assist in reducing the I 0 extensibility and/or elastic nature...

...12, and thus, minimizing the energy dissipation along the length of strand 12. Preferably, the **prosthetic** attachment portion 20 should be extendable only about 1% to 2% of its overall length...

...the expected force. A kernmantel-type or compact cord-like structure can be used as **prosthetic** attachment portion 20 to assist in efficiently transmitting longitudinal contraction forces from a muscle M, or group of muscles, to a bone or **prosthetic** device PD. Turning now to Fig. 3, the **prosthetic** attachment portion 20 preferably includes a core portion 22 and outer filaments 24. Core portion...

...of filaments 14 bundled and extending generally parallel to each along the length of the **prosthetic** coupling 10. The outer filaments 24 can be organized to provide mechanical stability and structural integrity to the first or **prosthetic** attachment portion 20. For example. the outer filaments 24 can be gathered into several groups...

...with the present invention. As exemplified in Fig. 2, the distal portion 28 of the **prosthetic** attachment portion can be provided with a junction device 50, such as a connector, clamp...

...60 (e.g., hydraulic cylinders and pistons, sheathed cables, pulleys and the like) of the **prosthetic** device, such as the circulatory assist device PD. The **prosthetic** device should provide assistance in the maintenance of blood flow and circulation though a body...

...957.977 (Melvin), the disclosures of which are hereby incorporated herein by reference. Preferabkl. the **prosthetic** devices should also be configured to assist in maintaining the force developed by the muscle's M contraction throughout the ejection stroke of the **prosthetic** device PD without additional metabolic demands on the muscle M, such as skeletal muscle. Illustrated examples of such devices suitable for use with a **prosthetic** device PD can include ratches, valves, and the like. The second or muscle coupling portion...of filaments 14 of the muscle coupliiig porti(ll 30 may be encased in or **impregnated** with, or both, a cover material 34 to lessen frictioll between the filaments 14 and...

...the strand 12 so as to assist in inhibiting fibrous tissue from adhering to the **prosthetic** coupling I 0 and thus, interfering with its function and/or generally linear movement. The...

...partially or entirely covers, and preferably surrounds or encases, at least a portion of the **prosthetic** attachment portion 20. It is contemplated that the exterior surface of the **prosthetic** attachment

portion 20, and preferably the outer filaments 24, may be formed from a fiber...
...material which may be employed as sleeve 40 of the present invention can include 5 **polyurethane** , such as that provided under the brand name TECOFLEX by Thermocardio Systems of Woburn, Massachusetts. To assist in inserting the **prosthetic** coupling 10 in the muscle M. an insertion kit 102 may be used. As exemplified...124 is illustrated as being movable relative to the second portion 132 on a pivot **joint** or hinge 122. 5 The clamp 120 can assist in holding the muscle M and...

41/3,AB,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00398775
Methods of forming permeation resistant, silicone elastomer-containing multi-layer structures and articles produced therby.
Verfahren zur Herstellung von permeationsbestandigen Silikonelastomer enthaltenden Mehrschichtstrukturen sowie dadurch hergestellte Artikel.
Methode de fabrication de structures composites en couches a base d'un elastomere en silicone resistant a la penetration et articles ainsi obtenus.
PATENT ASSIGNEE:
DOW CORNING WRIGHT CORPORATION, (742640), P.O. Box 100 5677 Airline Road, Arlington Tennessee, (US), (applicant designated states: BE;DE;ES;FR;GB;IT)
INVENTOR:
Frisch, Eldon Eugene, 1311 Glendale, Midland, Michigan 48640, (US)
LEGAL REPRESENTATIVE:
Lewin, John Harvey et al (33031), Elkington and Fife Prospect House 8 Pembroke Road, Sevenoaks, Kent TN13 1XR, (GB)
PATENT (CC, No, Kind, Date): EP 396230 A2 901107 (Basic)
EP 396230 A3 910626
EP 396230 B1 941130
APPLICATION (CC, No, Date): EP 90302528 900309;
PRIORITY (CC, No, Date): US 322970 890313
DESIGNATED STATES: BE; DE; ES; FR; GB; IT
INTERNATIONAL PATENT CLASS: C08J-007/04; A61L-027/00;
ABSTRACT EP 396230 A2
A method of making a permeation-resistant silicone elastomer-containing laminate useful for making fluid-containing implants such as mammary prostheses and gastric balloons. The method is accomplished by a) applying a layer of an unvulcanized heat-curable silicone elastomer composition to a cured silicone elastomer substrate, b) applying a layer of a solvent dispersion of a permeation-resistant elastomer and a solvent on the layer of unvulcanized silicone elastomer composition to form a three-layer laminate, and c) exposing the three-layered laminate to heat until the unvulcanized silicone elastomer composition is vulcanized. The unvulcanized silicone elastomer compostion must be bondable to the cured silicone elastomer substrate, the permeation-resistant elastomer is selcted from the group consisting of polyurethane, silicone-polyurethane copolymer and silicone-polycarbonate copolymer, and the permeation-resistant elastomer solvent must be compatible with both the permeation-resistant elastomer and the unvulcanized silicone elastomer composition.
ABSTRACT WORD COUNT: 140
LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPBBF1	377
CLAIMS B	(English)	EPBBF1	377
CLAIMS B	(German)	EPBBF1	413
CLAIMS B	(French)	EPBBF1	480
SPEC A	(English)	EPBBF1	4508
SPEC B	(English)	EPBBF1	4552
Total word count - document A			4885
Total word count - document B			5822
Total word count - documents A + B			10707

...SPECIFICATION scope of the invention which is properly delineated in the claims.
Example 1
A mammary **prosthesis** using the invention was prepared using a rotocoating method as follows. A patched, cured silicone elastomer envelope having a volume of 200 cm(sup 3) was prepared by first **dipping** a mandrel in a 13 weight % solvent dispersion of a heat-curable silicone elastomer composition...not cool to the touch, 10 cm(sup 3) of a 6 weight % solution of **TECOFLEX** (R) EG-80A Thermoplastic Polyurethane Elastomer in methylene chloride per 100 cm(sup 3) of...

43/3,AB,K/1 (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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01071013
COMPOSITIONS AND METHODS FOR COATING MEDICAL IMPLANTS
COMPOSITIONS ET PROCEDES D'ENROBAGE D' IMPLANTS **MEDICAUX**
Patent Applicant/Assignee:
ANGIOTECH PHARMACEUTICALS INC, 1618 Station Street, Vancouver, British Columbia V6A 1B6, CA, CA (Residence), CA (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
HUNTER William L, 4444 West 15th Avenue, Vancouver, British Columbia V6R 3B2, CA, CA (Residence), CA (Nationality), (Designated only for: US)
GRAVETT David M, 616 West 21st Avenue, Vancouver, British Columbia V5Z 1Y8, CA, CA (Residence), CA (Nationality), (Designated only for: US)
TOLEIKIS Philip M, 8011 Laburnum Street, Vancouver, British Columbia V6P 5N8, CA, CA (Residence), US (Nationality), (Designated only for: US)
LIGGINS Richard T, 407 Lakeview Street, Coquitlam, British Columbia V3K 5K7, CA, CA (Residence), CA (Nationality), (Designated only for: US)
LOSS Troy A E, #3 - 1536 Eastern Avenue, North Vancouver, British Columbia V7L 3G1, CA, CA (Residence), CA (Nationality), (Designated only for: US)
Legal Representative:
PEPE Jeffrey C (et al) (agent), Seed Intellectual Property Law Group PLLC, Suite 6300, 701 Fifth Avenue, Seattle, WA 98104-7092, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200399346 A2 20031204 (WO 0399346)
Application: WO 2003US16719 20030527 (PCT/WO US0316719)
Priority Application: US 2002383419 20020524
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NI NO NZ OM PH PL PT RO RU SC SD SE SG SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW (EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE

SI SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 51192
English Abstract
Medical implants are provided which release an anthracycline, fluoropyrimidine, folic acid antagonist, podophylotoxin, camptothecin, hydroxyurea, and/or platinum complex, thereby inhibiting or reducing the incidence of infection associated with the implant.
Fulltext Availability: Detailed Description

44/6/10 (Item 1 from file: 349)
01089736 **Image available**
DEVICES DELIVERING THERAPEUTIC AGENTS AND METHODS REGARDING THE SAME

44/6/13 (Item 4 from file: 349)
00917099
MEDICATED POLYMER-COATED STENT ASSEMBLY

44/6/21 (Item 12 from file: 349)
00475956 **Image available**
MICROPOROUS STENT AND IMPLANTATION DEVICE

44/6/25 (Item 16 from file: 349)
00240438
ATHERECTOMY CATHETER HAVING FLEXIBLE NOSE CONE

44/3,AB,K/1 (Item 1 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS
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01526327
Triclosan containing medical devices
Triclosan-enthaltende medizinische Vorrichtungen
Dispositifs a usage medical contenant du triclosan
PATENT ASSIGNEE:
The Trustees of Columbia University in the City of New York, (477540), Broadway and West 116th Street, New York, NY 10027-6699, (US), (Applicant designated States: all)
INVENTOR:
Modak, Shanta, 184 Howland avenue, River Edge, NJ 07661, (US)
Sampath, Lester, 7 Lawrence street, Nyack, NY 10960, (US)
LEGAL REPRESENTATIVE:
Cole, Paul (29423), Lucas & Co., 135 Westhall Road, Warlingham, Surrey CR6 9HJ, (GB)
PATENT (CC, No, Kind, Date): EP 1273313 A2 030108 (Basic)
EP 1273313 A3 030205
APPLICATION (CC, No, Date): EP 2002079182 961223;
PRIORITY (CC, No, Date): US 583239 960105
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
RELATED PARENT NUMBER(S) - PN (AN):
EP 874655 (EP 96945335)
INTERNATIONAL PATENT CLASS: **A61L-029/16** ; **A61L-031/16** ; A61M-005/32

ABSTRACT EP 1273313 A3

The present invention relates to polymeric medical articles comprising the antiinfective agents chlorhexidine and triclosan. It is based, at least in part, on the discovery that the synergistic relationship between these compounds permits the use of relatively low levels of both agents, and on the discovery that effective antimicrobial activity may be achieved when these compounds are comprised in either hydrophilic or hydrophobic polymers. It is also based on the discovery that chlorhexidine free base and triclosan, used together, are incorporated into polymeric medical articles more efficiently. Medical articles prepared according to the invention offer the advantage of preventing or inhibiting infection while avoiding undesirably high release of antiinfective agent, for example into the bloodstream of a subject.

ABSTRACT WORD COUNT: 119

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200302	279
SPEC A	(English)	200302	7242
Total word count - document A			7521
Total word count - document B			0
Total word count - documents A + B			7521

...SPECIFICATION polymeric medical article (i.e., a medical article fabricated from a hydrophilic polymer) treated by **dipping** or soaking the article in a treatment solution of a hydrophilic polymer comprising chlorhexidine and...Medicine, CRC Press Inc., Fla. pp. 57-67; polyurethanes comprising substantially aliphatic backbones such as **Tecoflex** (TM) 93A; polyurethanes comprising substantially aromatic backbones such as **Tecothane** (TM); and Pellethane(TM)), polylactic acid, polyglycolic acid, natural rubber latex, and gauze or water...

...the hydrophilic medical article is a polyurethane catheter which has been treated with (i.e., **dipped** or soaked in) a treatment solution comprising (i) between about 1 and 10 percent, preferably...Chlorhexidine And Silver Sulfadiazine When Applied To Hydrophilic Catheters

Polyurethane central venous catheters fabricated of **Tecoflex** 93-A polyurethane were **dipped** in solutions containing 3 percent of a biomedical polyurethane (**Tecoflex** 93-A; "PU") and CHA, TC and/or silver sulfadiazine ("AgSD") dissolved in 30 percent...

...dried. Bacterial adherence on these catheters was measured as follows. A 2 cm segment of **dipped** catheter was suspended in 3 ml TSB containing 10 percent BCS and incubated in a...reagent alcohol for 10 minutes, dried for three days, and then the outer surface was **dipped** in 2.7% **Tecoflex** polyurethane dissolved in THF/reagent alcohol (70%/30%); the resulting catheters are referred to as...

44/3,AB,K/2 (Item 2 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

01313433

A method of providing a substrate with a hydrophilic coating and substrates, particularly medical devices, provided with such coatings

Verfahren zur Herstellung einer hydrophilen Beschichtung auf einem Substrat, sowie Substrate, insbesondere medizinische Gerate, mit verschleissbestandigen Beschichtungen

Methode pour obtenir un revetement hydrophile sur un substrat et substrats, en particulier instruments medicaux, avec ces revetements

PATENT ASSIGNEE:
Meadox Medicals, Inc., (511281), 112 Bauer Drive, Oakland New Jersey 07436, (US), (Proprietor designated states: all)
INVENTOR:
Zhong, Sheng-Ping, 21 Charina Road, Northborough, MA 01532, (US)
LEGAL REPRESENTATIVE:
Bond, Bentley George et al (28441), Haseltine Lake & Co., Imperial House, 15-19 Kingsway, London WC2B 6UD, (GB)
PATENT (CC, No, Kind, Date): EP 1121947 A1 010808 (Basic)
EP 1121947 B1 040107
APPLICATION (CC, No, Date): EP 2001110094 960213;
PRIORITY (CC, No, Date): US 392141 950222
DESIGNATED STATES: DE; FR; GB; NL
RELATED PARENT NUMBER(S) - PN (AN):
EP 728487 (EP 96300978)
INTERNATIONAL PATENT CLASS: **A61L-029/08** ; **A61L-029/16** ; **A61L-031/16**
ABSTRACT EP 1121947 A1

A substrate such as a catheter or a guide wire is provided with a lubricous, hydrophilic abrasion-resistant coating by:

a) coating said substrate with a first aqueous coating composition comprising an aqueous dispersion or emulsion of a first polymer having organic acid functional groups and a first polyfunctional crosslinking agent having functional groups being capable of reacting with organic acid groups, and drying said first coating composition to obtain a substantially water-insoluble coating layer still including functional groups being reactive with organic acid groups; and

b) contacting said dried coating layer with a second aqueous coating composition comprising an aqueous solution or dispersion of a hydrophilic polymer having organic acid functional groups, a second polymer having organic acid functional groups, and a second polyfunctional crosslinking agent having functional groups being capable of reacting with organic acid groups, and drying to effectuate covalent bonding of said hydrophilic polymer and said second polymer to said first polymer of the first coating composition through said first or said second crosslinking agents to form a hydrophilic coating; wherein said first polymer and said second polymer may be the same or different, and further wherein said first crosslinking agent and said second crosslinking agent may be the same or different.

The drying can be carried out at ambient (room) temperature.

ABSTRACT WORD COUNT: 218
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200132	1481
CLAIMS B	(English)	200402	617
CLAIMS B	(German)	200402	558
CLAIMS B	(French)	200402	682
SPEC A	(English)	200132	5151
SPEC B	(English)	200402	5222
Total word count - document A			6633
Total word count - document B			7079
Total word count - documents A + B			13712

44/3,AB,K/4 (Item 4 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00872276
TRICLOSAN-CONTAINING MEDICAL DEVICES
TRICLOSAN-ENTHALTENDE MEDIZINISCHE VORRICHTUNGEN
DISPOSITIFS A USAGE MEDICAL CONTENANT DU TRICLOSAN
PATENT ASSIGNEE:
The Trustees of Columbia University in the City of New York, (2615110), Broadway & 116th Street, New York, NY 10027-6699, (US), (Proprietor designated states: all)
INVENTOR:
MODAK, Shanta, 184 Howland Avenue, River Edge, NJ 07661, (US)
SAMPATH, Lester, 7 Lawrence Street, Nyack, NY 10960, (US)
LEGAL REPRESENTATIVE:
Franks, Robert Benjamin (74662), Franks & Co. 9 President Buildings Saville Street East, Sheffield South Yorkshire S4 7UQ, (GB)
PATENT (CC, No, Kind, Date): EP 874655 A1 981104 (Basic)
EP 874655 B1 030716
WO 97025085 970717
APPLICATION (CC, No, Date): EP 96945335 961223; WO 96US20932 961223
PRIORITY (CC, No, Date): US 583239 960105
DESIGNATED STATES: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE
RELATED DIVISIONAL NUMBER(S) - PN (AN):
EP 1273313 (EP 2002079182)
INTERNATIONAL PATENT CLASS: **A61L-029/00** ; **A61L-031/00** ; A61M-005/32
NOTE: No A-document published by EPO
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200329	1912
CLAIMS B	(German)	200329	1869
CLAIMS B	(French)	200329	2209
SPEC B	(English)	200329	7894
Total word count - document A			0
Total word count - document B			13884
Total word count - documents A + B			13884

...SPECIFICATION polymeric medical article (i.e., a medical article fabricated from a hydrophilic polymer) treated by **dipping** or soaking the article in a treatment solution of a hydrophilic polymer comprising chlorhexidine and...
...Medicine, CRC Press, Inc., Fla. pp. 57-67; polyurethanes comprising substantially aliphatic backbones such as **Tecoflex** (TM) 93A; polyurethanes comprising substantially aromatic backbones such as **Tecothane** (TM); and Pellethane(TM)), polylactic acid, polyglycolic acid, natural rubber latex, and gauze or water...
...the hydrophilic medical article is a polyurethane catheter which has been treated with (i.e., **dipped** or soaked in) a treatment solution comprising (i) between about 1 and 10 percent, preferably...CHLORHEXIDINE AND SILVER SULFADIAZINE WHEN APPLIED TO HYDROPHILIC CATHETERS
Polyurethane central venous catheters fabricated of **Tecoflex** 93-A polyurethane were **dipped** in solutions containing 3 percent of a biomedical polyurethane (**Tecoflex** 93-A; "PU") and CHA, TC and/or silver sulfadiazine ("AgSD") dissolved in 30 percent...
...dried. Bacterial adherence on these catheters was measured as follows. A 2 cm segment of **dipped** catheter was suspended in 3 ml TSB containing 10 percent BCS and incubated in a...reagent alcohol for 10 minutes, dried for three days, and then the outer surface was **dipped** in 2.7% **Tecoflex**

polyurethane dissolved in THF/reagent alcohol (70%/30%); the resulting catheters are referred to as...

44/3,AB,K/6 (Item 6 from file: 348)
DIALOG(R)File 348:EUROPEAN PATENTS

00780886
A method of providing a substrate with a hydro-philic coating and substrates, particularly medical devices, provided with such coatings
Verfahren zur Herstellung einer hydrophilen Beschichtung auf einem Substrat, sowie Substrate, insbesondere medizinische Gerate, mit verschleissbestandigen Beschichtungen
Methode pour obtenir un revetement hydrophile sur un substrat et substrats, en particulier instruments medicaux, avec ces revetements
PATENT ASSIGNEE:
Meadox Medicals, Inc., (511281), 112 Bauer Drive, Oakland New Jersey 07436, (US), (Proprietor designated states: all)
INVENTOR:
Zhong, Sheng-Ping, Nygardsterasserne 209F, 3520 Farum, (DK)
LEGAL REPRESENTATIVE:
Nash, David Allan et al (59252), Haseltine Lake & Co., Imperial House, 15-19 Kingsway, London WC2B 6UD, (GB)
PATENT (CC, No, Kind, Date): EP 728487 A1 960828 (Basic)
EP 728487 B1 011121
APPLICATION (CC, No, Date): EP 96300978 960213;
PRIORITY (CC, No, Date): US 392141 950222
DESIGNATED STATES: BE; CH; DE; DK; ES; FR; GB; IT; LI; LU; NL; SE
RELATED DIVISIONAL NUMBER(S) - PN (AN):
EP 1121947 (EP 2001110094)
INTERNATIONAL PATENT CLASS: **A61L-029/00**
ABSTRACT EP 728487 A1

A substrate such as a catheter or a guide wire is provided with a lubricous, hydrophilic abrasion-resistant coating by:

a) coating said substrate with a first aqueous coating composition comprising an aqueous dispersion or emulsion of a polymer having organic acid functional groups and a polyfunctional crosslinking agent having functional groups being capable of reacting with organic acid groups, and drying the coating to obtain a substantially water-insoluble coating layer still including functional groups being reactive with organic acid groups, and

b) contacting the dried coating layer obtained in a) with a second aqueous coating composition comprising an aqueous solution or dispersion of a hydrophilic polymer having organic acid functional groups, and drying the combined coating, the hydrophilic polymer thereby becoming bonded to the polymer of the first coating composition through the crosslinking agent.

The drying can be carried out at ambient (room) temperature.

ABSTRACT WORD COUNT: 175
LANGUAGE (Publication,Procedural,Application): English; English; English
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	EPAB96	1033
CLAIMS B	(English)	200147	1031
CLAIMS B	(German)	200147	927
CLAIMS B	(French)	200147	1166
SPEC A	(English)	EPAB96	5255

SPEC B (English) 200147 5126
Total word count - document A 6289
Total word count - document B 8250
Total word count - documents A + B 14539
...SPECIFICATION prepared as described in Example 1 using the following ingredients: (Table omitted)
A polyurethane tube (**Tecoflex** EG-93A, from Thermedics, Inc.) was **dipped** in the first coating composition and dried in an over at 60(degree)C for 10 minutes. Then the tube was **dipped** in the second coating composition, dried in an oven at 60(degree)C for 10 minutes and **dipped** in the second coating composition once more, after which it was dried at ambient temperature...
...SPECIFICATION composition was prepared as described in Example 1 using the following ingredients:
A polyurethane tube (**Tecoflex** EG-93A, from Thermedics, Inc.) was **dipped** in the first coating composition and dried in an over at 60(degree)C for 10 minutes. Then the tube was **dipped** in the second coating composition, dried in an oven at 60(degree)C for 10 minutes and **dipped** in the second coating composition once more, after which it was dried at ambient temperature...

44/3,AB,K/12 (Item 3 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT

01001237
PARTICLE IMMOBILIZED COATINGS AND USES THEREOF
REVETEMENT A PARTICULES IMMOBILISEES ET LEUR UTILISATION
Patent Applicant/Assignee:
SURMODICS INC, 9924 West 74th Street, Eden Prairie, MN 55344, US, US (Residence), US (Nationality), (For all designated states except: US)
Patent Applicant/Inventor:
GUIRE Patrick E, 6741 Tartan Curve, Eden Prairie, MN 55346, US, US (Residence), US (Nationality), (Designated only for: US)
TATON Kristin S, 2389 Greenbrier Circle, Little Canada, MN 55117, US, US (Residence), US (Nationality), (Designated only for: US)
WALL John V, 682 Falcon Ridge Road, Woodbury, MN 55125, US, US (Residence), US (Nationality), (Designated only for: US)
Legal Representative:
WEAVER Paul L (et al) (agent), Kagan Binder, PLLC, 200 Maple Island Building, 221 Main Street North, Stillwater, MN 55082, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200330879 A1 20030417 (WO 0330879)
Application: WO 2002US31085 20020930 (PCT/WO US0231085)
Priority Application: US 2001327441 20011005
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VC VN YU ZA ZM ZW
(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LU MC NL PT SE SK TR
(OA) BF BJ CF CG CI CM GA GN GQ GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZM ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 17535
English Abstract

Surface coatings including microparticles immobilized in a polymeric matrix on a substrate are described. The microparticles can also include an agent which can be useful for various applications, such as medical applications. This invention relates to the field of surface coatings for use in various applications. More particularly, the invention relates to surface coating useful for drug delivery, imaging and utilizing microparticles immobilized via a polymeric matrix.
...International Patent Class: **A61L-027/54** ...
... **A61L-031/16** ...
... **A61L-029/16**
Fulltext Availability: Detailed Description
Detailed Description
... coated microparticles and 50 mg/ml (BBA-APMA:VP)-1.
A2-inchlong,0 inchindiameter,pieceofpolyurethanerod(**Tecoflex** EG-60D; Thermedics Polymer Products, Woburn, MA) was cleaned with an 1 5 isopropanol rinse, rinsed twice with deionized water, and air dried. The rod was then coated by **dipping** one end in the above coating solution to a depth of approximately 1 cm and...

44/3,AB,K/15 (Item 6 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00804144
MEDICAL DEVICES COATED WITH ELASTIC POLYMERIC MATERIAL
DISPOSITIFS EN SPIRALE ETANCHES FLEXIBLES
Patent Applicant/Assignee:
STS BIOPOLYMERS INC, 336 Summit Point Drive, Henrietta, NY 14467, US, US (Residence), US (Nationality)
Inventor(s):
COPENHAGEN Donald M, 8730 Belcher Road, Bloomfield, NY 14469, US,
HULLIHEN Daniel G Jr, Apartment 2, 5763 Sutton Road, Avon, NY 14414, US,
SCHOTT Rachel L, Apartment 15, 285 Oxford Street, Rochester,NY 14607, US,
WHITBOURNE Richard J, Apartment 8R, 2500 East Avenue, Rochester, NY 14610 , US,
Legal Representative:
MELORO Thomas J (et al) (agent), Kenyon & Kenyon, One Broadway, New York, NY 10004, US,
Patent and Priority Information (Country, Number, Date):
Patent: WO 200136008 A2-A3 20010525 (WO 0136008)
Application: WO 2000US31314 20001115 (PCT/WO US0031314)
Priority Application: US 99442891 19991118
Designated States: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW
(EP) AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE TR
(OA) BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG
(AP) GH GM KE LS MW MZ SD SL SZ TZ UG ZW
(EA) AM AZ BY KG KZ MD RU TJ TM
Publication Language: English
Filing Language: English
Fulltext Word Count: 5548
English Abstract
The invention includes a medical device with a surface covering and coating that provides the device with desirable surface characteristics while optionally altering the surface area of the device, such that in

the case of reusable devices they are easier to clean, and in the case of such devices as stents, the covering and coating provides a permanently adherent sheath resulting in an increased surface area. Optionally, the covering and coating is used as a drug reservoir for delivery of drug to specific locations.

Main International Patent Class: **A61F-002/06**
Fulltext Availability: Detailed Description
Detailed Description
... 1 0 of the invention.
Example I
A 0.035 " stainless steel guide wire was **dipped** in a solution of 25% (w/w) polyurethane polymer, **ChronoFlex** AR (Medical grade aromatic polycarbonate polyurethane synthesized by the addition ofMDI (diphenylmethane4,4-diisocyanate) to **dipped** in the following hydrogel solution, withdrawn, and oven dried at 85'C for about 60...

44/3,AB,K/28 (Item 19 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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00180580
NON-POROUS COATED PTFE GRAFT
GREFFE EN PTFE (POLYTETRAFLUROETHYLENE) ENROBEE NON POREUSE
Patent Applicant/Assignee:
IMPRA INC,
Inventor(s):
KOWLIGI Rajagopal R,
FARNAN Robert Charles,
COLONE William Michael,
DELLA CORNA Linda V,
SINNOTT Joseph Brian,
Patent and Priority Information (Country, Number, Date):
Patent: WO 9014054 A1 19901129
Application: WO 90US2957 19900525 (PCT/WO US9002957)
Priority Application: US 8911 19890526
Designated States: AT BE CH CH DE DE DK ES ES FR GB GB IT JP LU NL SE
Publication Language: English
Fulltext Word Count: 5511
English Abstract
A non-porous coated PTFE graft (20) includes a PTFE tube (32) having a conventional porous inner cylindrical wall (34) and a non-porous elastomeric coating (38) applied over at least a portion of the outer cylindrical wall (36) of the PTFE tube to render such portion of the outer cylindrical wall non-porous. The elastomeric coating is made of polyurethane or another biocompatible non-porous elastomer and precludes tissue ingrowth into the outer cylindrical wall, minimizes suture hole bleeding, and increases suture retention strength, while reducing the incidence of serious weepage. The elastomeric coating is preferably applied by mounting the PTFE tube upon a mandrel (68) of like diameter and either dip coating or spray coating all, or selected portions, of the PTFE tube with liquified polyurethane. After the polyurethane coating is completely dried, the non-porous vascular graft is removed from the mandrel and is ready for use.
Main International Patent Class: **A61F-002/06**
Fulltext Availability: Detailed Description
Detailed Description
... may range up to 15 percent by weight, depending upon the specific

polymer composition, the **dip coating** parameters, and the intended end uses, Where multiple coatings are employed, the composition of the...
...solution as a coating upon the outer wall of PTFE tube 66, The method of **dip coating** the PTFE tube will now be described in conjunction with Fig. 4, which illustrates a **dip coating** machine, Fig, 4 illustrates a **dip coating** machine designated generally by reference numeral 65, As mentioned above, mandrel 68 is preferably selected...